

4C 491111 COLCHESTER

BOROUGH OF



COLCHESTER.

ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH

FOR THE YEAR

1913.

COLCHESTER:

Printed by Benham and Company, Limited.

BOROUGH OF



COLCHESTER.

ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH

FOR THE YEAR

1913.

COLCHESTER:

Printed by Benham and Company, Limited.

BOROUGH & PORT HEALTH COMMITTEE, 1913-14.

Chairman :

Alderman HENRY LAVER, J.P., M.R.C.S., F.S.A.

Deputy-Chairman :

Councillor R. B. BEARD, J.P.

THE MAYOR :

(Alderman Wilson Marriage, J.P.)

Councillor J. W. BARE.	Councillor W. H. TAYLOR.
„ H. J. EVERETT.	„ T. B. TURNER.
„ T. SMITH.	„ A. WENT.

Staff of the Public Health Department, 1913.

*Medical Officer of Health and Medical Superintendent of the
Isolation Hospital :*

WALTER F. CORFIELD, M.D., B.S., D.P.H.

Sanitary Inspector :

T. WELLS, Cert. Roy. Sanit. Inst., Cert. Meat Inspector.

Assistant Sanitary Inspector :

C. S. HUMPHREYS.

Disinfectors :

G. T. HEWES.

Health Visitor :

Miss SASSE.

Clerk and Laboratory Assistant :

A. FISHER, Cert. Roy. Sanit. Inst.

Matron of the Isolation Hospital :

Miss K. BRAIDWOOD.

INDEX TO REPORT.

B	Page	L	Page
Bacteriological Work ..	67	Local Government Board ..	72
Births ..	8	Tables ..	
Illegitimate ..	10		
C		M	
Cancer ..	10	Milk Supply ..	40
Common Lodging Houses ..	34, 38	Milk and Cream Regulations ..	45
D		N	
Deaths.. ..	7, 10	Notification of Births Act ..	18
Certification of ..	13	Nuisances ..	31
Institutional ..	12		
Military ..	12	O	
Illegitimate Infants ..	16	Offensive Trades ..	39
Disinfection ..	25		
Drain Testing ..	37	P	
F		Poor Law Relief ..	23
Factories and Workshops ..	50	Population ..	7
Food Inspection ..	35, 43		
H		R	
Health Visitor ..	16	Rainfall Returns ..	71
House Refuse ..	30		
Hospital Relief ..	23	S	
Housing ..	32, 46	Sale of Foods and Drugs Acts ..	44
I		Sanitary Inspector's Report ..	31
Infant Feeding ..	16, 21	Schools.. ..	39
Infantile Diarrhœa..	19	Social Conditions ..	22
Mortality ..	15	Surveyor's Report ..	27
Infectious Diseases ..	32, 57		
Cerebro-Spinal Meningitis ..	48, 62	T	
Diphtheria ..	60	Tuberculosis ..	63
Enteric Fever ..	51	Tuberculin, use of ..	40
Other Infectious Diseases ..	63		
Poliomyelitis ..	48, 62	W	
Scarlet Fever ..	59	Water Supply ..	23
Small Pox ..	47, 62	Analysis of ..	24
Inquests ..	22	Superintendent's Reports ..	25
Isolation Hospital ..	58		

PUBLIC HEALTH DÉPARTMENT,
36, STANWELL STREET,

26th May, 1914.

TO THE MAYOR, ALDERMEN, AND COUNCILLORS
OF THE BOROUGH OF COLCHESTER.

GENTLEMEN,

It is my privilege to present to you my fifth Annual Report upon the health and sanitary circumstances of the Borough of Colchester.

I have divided the Report into three main divisions, viz.—

1. The Public Health.
2. The Infectious Diseases, Tuberculosis and the work of the Borough laboratories.
3. Meteorological and Stastistical Tables.

For the first time the Registrar General has supplied factors for standardizing the various death rates and correcting errors that occur from differences of age and sex distribution.

The death-rate did not reach the low record of 1912, but it was only a fraction higher, being 11·2 per 1,000 as compared with 10·6 in the previous year.

The birth-rate has neither increased nor diminished, remaining at the same figure, 19·7, as in 1912. But the Infantile Mortality Rate has beaten even the very low figure of 1912, being only 60 per 1,000 infants born, the average for the previous five years being over 90.

It is becoming very necessary that increased accommodation be provided for the Public Health Department. The laboratory and clerical work has very greatly increased during the last two years, and also the work of the Sanitary Inspectors.

I have pleasure in reporting that the Staff of the Department and Isolation Hospital continue to carry out their duties in a satisfactory manner and that no changes have occurred amongst the staff of the Department.

In conclusion I beg to thank the Chairman and Members of the Borough and Port Health Committee for their courteous consideration and for their continued support in matters concerning the Public Health Department. Also I wish to thank the staff of the Department and Isolation Hospital for their loyal assistance throughout the year.

I am, Gentlemen,

Your obedient Servant,

WALTER F. CORFIELD, M.D., D.P.H., B.S.,
Medical Officer of Health.

The Public Health.

Report of the Medical Officer of Health for the Year 1913.

VITAL STATISTICS.

1. A Table is set out below similar to that given last year, comparing statistical results of certain other towns of a similar size with those of Colchester:—

	Colchester.	Cheltenham.	Bath.	Oxford.
Population	44,700	49,500	69,944	53,948
Birth-Rate	19·7	15·8	15·8	17·42
Death-Rate	11·2	13·0	11·3	11·7
Infantile Death-Rate ...	60	88	75	84
Zymotic Death-Rate ...	·42	·88	·7	·44
Respiratory Diseases Death-Rate (excluding Pulmonary Tuberculo- sis)	1·2	1·6	1·9	1·63
Pulmonary Tuberculosis Death-Rate	·76	1·0	·78	·96
Other Tubercular Diseases Death-Rate	·40	·48	·28	·22
Cancer Death-Rate.....	·96	1·55	1·35	1·5

2. The Death-Rate is standardised in each instance, that is to say, corrected for age and sex distribution. In a town chiefly populated by old persons the death-rate will naturally be higher than in one populated by young persons; similarly a male or female preponderance will make a difference. The Registrar-General has recently published a factor for correction for each town which corrects these differences, and it is these standardised death-rates which are given above.

All the Rates are calculated per 1,000 inhabitants, with the exception of the Infantile Mortality Rate; this is calculated per 1,000 children born in the year.

The principal Zymotic Diseases from which the Zymotic

Death-Rate is calculated are :—Small-Pox (0), Measles (0), Scarlet Fever (0), Diphtheria (5), Whooping Cough (6), Enteric Fever (4), and Infantile Diarrhœa (4). The figures given in brackets are the number of deaths caused by each disease during the year.

3. The estimated population shows an increase of 540 persons above that estimated for 1912. Towards the end of the year this figure was still further increased by the arrival of the patients and staff of Severalls Asylum to the number of 1,276 persons, and this figure will be most probably still further increased during 1914.

The number of births was in excess of the number of deaths by 382.

4. Col. F. S. Jeneken, Assistant Director of Medical Services, Colechester District, has again kindly supplied figures, giving the average daily strength of the Garrison for 1913 ; they are :—

Officers	...	...	...	117
Men	...	...	...	3309
Women	...	...	...	322
Children	...	...	...	558
Total Average Daily Strength			..	4306

This is a decrease of 20 below the average strength of 1912.

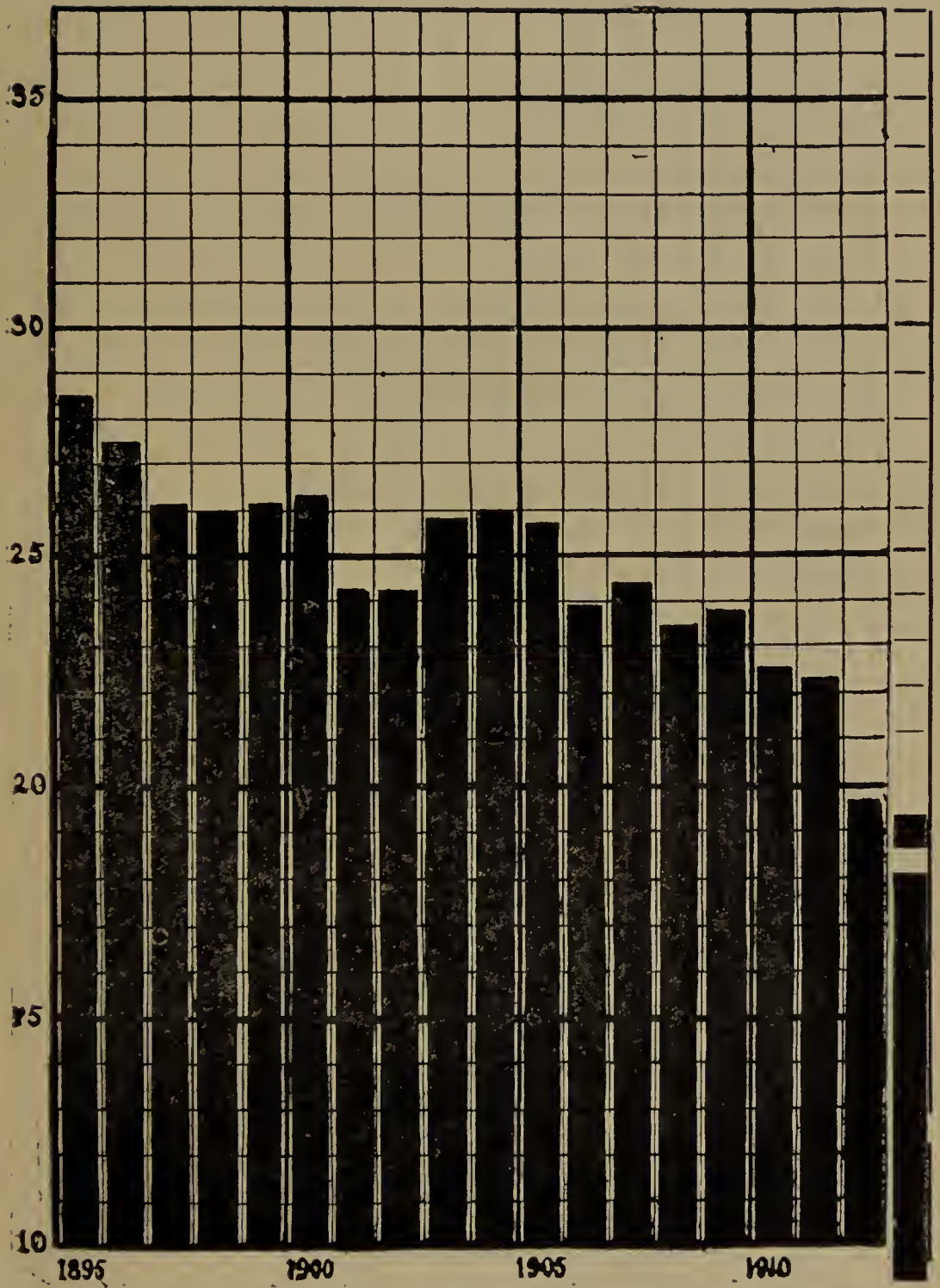
BIRTHS.

5. In Chart A it will be seen that for many years past the birth-rate has been gradually declining. In 1895 it was 28·5 and then in three years fell to 26·1, where it remained almost stationary for four years and then fell to 24·2 ; two years later it was up nearly to 26 again, but then after 1905 the fall was almost continuous to the figure of 19·7, at which it now stands.

No doubt the drop of 1901 and rise of 1903 was due to the war in South Africa.

It appears probable that this decline will continue. Competition becomes keener, and thereby the marriage age becomes later, and emigration takes away many young persons who otherwise would have remained to bring up families at home. Other

CHART A.



BIRTH RATES FOR YEARS 1895--1913.

causes no doubt contribute, but the time may come, and every year appears to bring it closer, when the number of births will equal the number of deaths, and there will be no natural increase.

It is the case almost all over the country that the birth-rate is dropping, and Colchester is no exception to the rule, with the result that the natural increase, that is the figure 382 given above, steadily grows less. Last year it was 33 less than in 1911, now in 1913 it is 21 less than in 1912. The large drop in the birth-rate that occurred in 1912 has been maintained, the rate for 1913 being exactly the same, *i.e.* 19·7.

6. Year by year this natural increase grows less. In the last four years, from 1910 to 1913, this increase has diminished by 100. This is not because the death-rate has increased, on the contrary it has diminished. Thus the whole of this reduction of the natural increase is due to the fall in the birth-rate.

The births during 1913 were divided into 461 boys and 419 girls, and were distributed in the four wards as follows :—

		North.	South.	East.	West.
Males	...	83	162	128	88
Females	...	69	140	131	79

Two births that belonged to Colchester occurred elsewhere. These births are transferred to Colchester for statistical purposes. Thus in all 882 infants were born to Colchester in 1913, giving a birth-rate of 19·7.

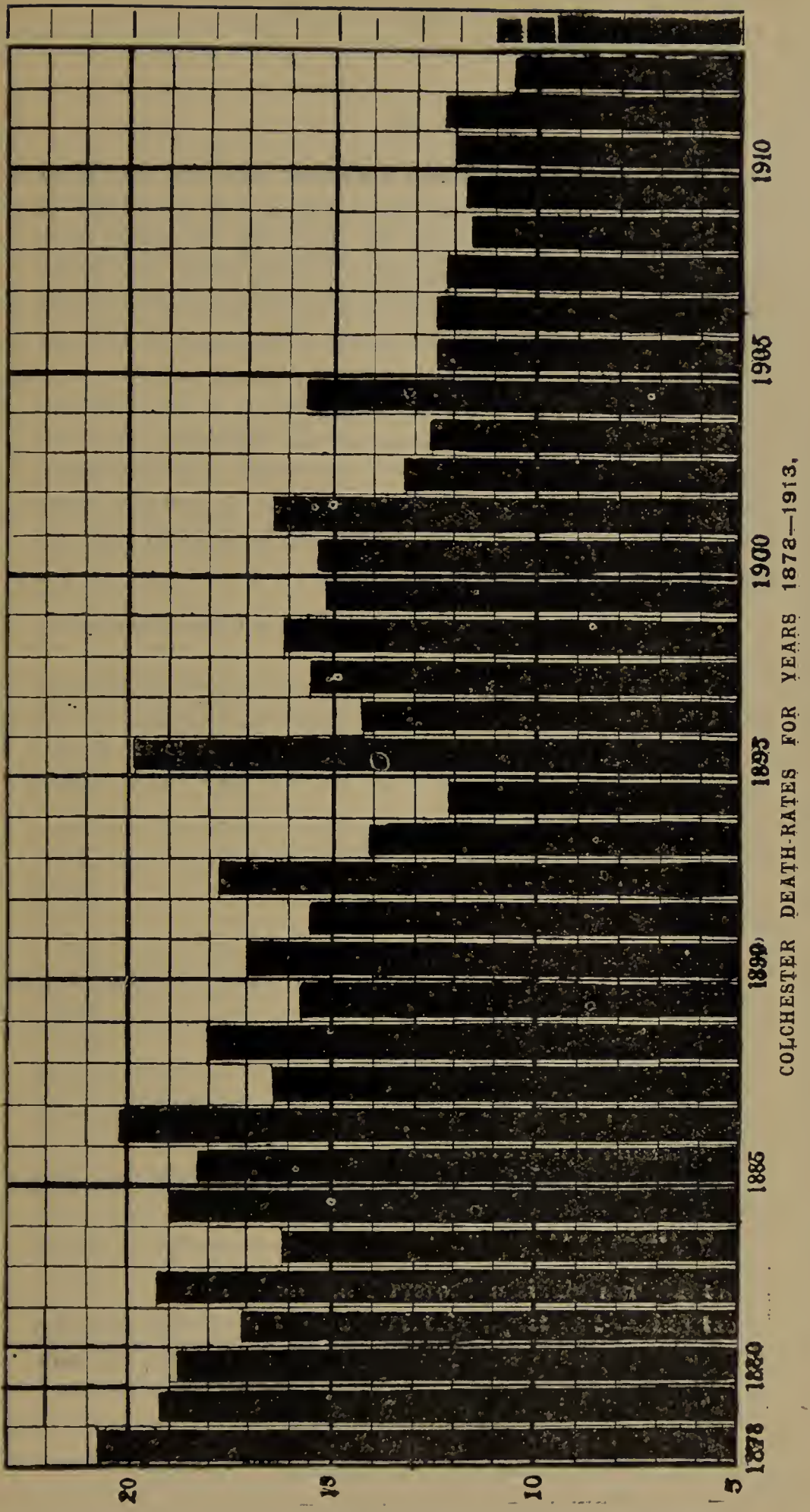
7. Had the rate of ten years ago continued, instead of only 882 children being born, there would have been 1,162 children born in 1913.

8. There were 40 Illegitimate Births—equal to 4·5 per cent. of the total births, this percentage last year being 5·1.

DEATHS.

9. The death-rate is slightly higher than in 1912, when the unusually low figure of 10·6 was reached. But, though higher, it is the next lowest rate that has yet been recorded, being only ·5 higher than 10·6.

CHART B.



10. The number of deaths registered was 564, but 83 of these were of non-residents, and these deaths were transferred to their appropriate district. In the same way 19 deaths were transferred to Colchester from other districts where Colchester residents had died. Thus the nett number of deaths belonging to the district was 500, and this gives a death-rate of 11·1 per thousand.

As Chart A shows the gradual decline of the birth-rate so Chart B. shows a similar decline in the death-rate. It is too much to hope that this rate can fall much further; occasionally a single figure rate may be obtained, but it is probable that, for many years to come, a steady rate of between 10 and 11 will be the best attainable.

11. There were 24 deaths among the military population; this is 6 more than last year.

The following table gives the number of deaths that occurred in Institutions and the Institutions in which they occurred:—

	Residents.	Non-Residents.	Total.
Essex County Hospital ...	44	35	79
Colchester Union Infirmary...	52	—	52
Eastern Counties' Asylum ...	—	16	16
Mile End Infectious Hospital	5	3	8
Colchester Nursing Home ...	3	—	3
Essex & Colchester Asylum	4	23	27
	—	—	—
	108	77	185
	—	—	—

Altogether 83 persons who were not Colchester residents died in Colchester. The 6 deaths not accounted for above occurred elsewhere than in an Institution.

In 1912, 141 persons died in Institutions in the district. The above increase is accounted for partly by the new Essex and Colchester Asylum, and partly by an increased number of deaths (20) at the Essex County Hospital.

12. It is of interest to compare the birth and death rates for Colchester with those for England and Wales as a whole, and with

those of the large and small towns as divided by the Registrar General.

The table below shows this comparison and is of particular interest, as it gives the death-rates corrected, or, as it is now called, standardized for purposes of comparison.

	Annual Rates per 1 000 Living			Deaths under One Year to 1,000 Births.
	Births.	Deaths		
		Crude.	Standard-ized.*	
England and Wales	23·9	13·7	13·4	109
96 great towns, including London ..	25·1	14·3	14·7	116
145 smaller towns	23·9	12·8	13·0	112
England and Wales, less the 241 towns ..	22·2	13·1	12·1	96
Colchester	19·7	11·1	11·2	60

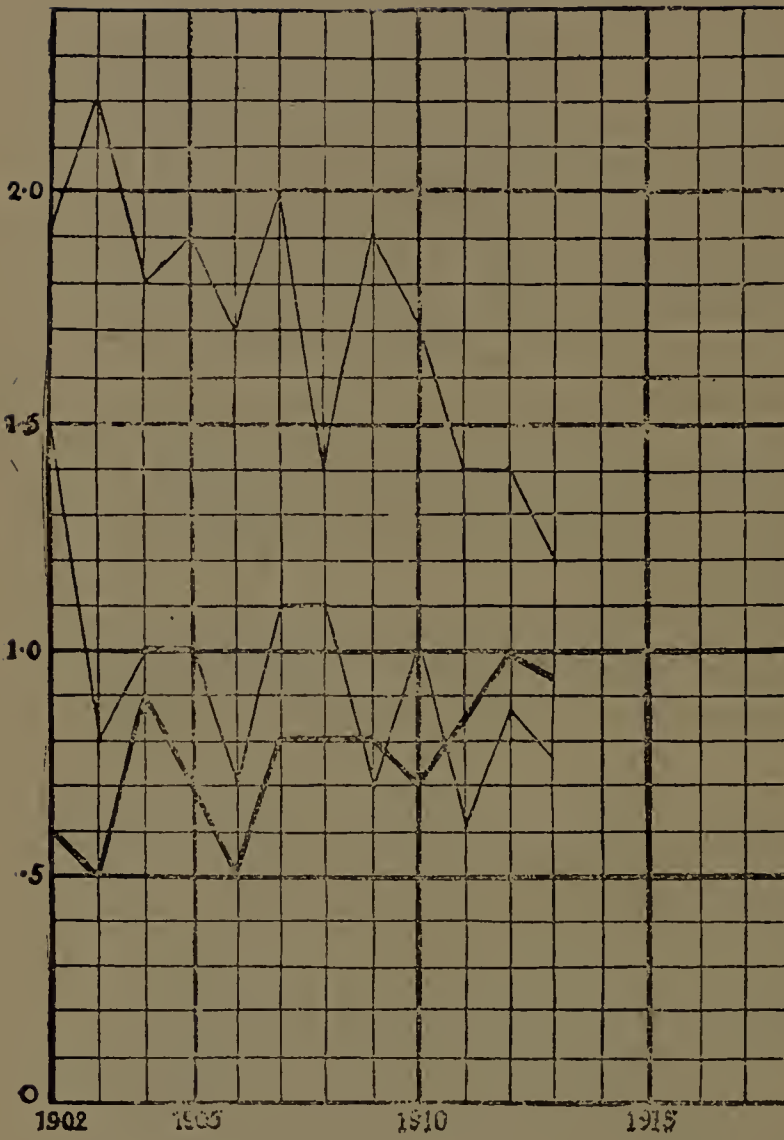
13. Chart C. that was included in the Report for 1912 is again repeated and extended for 1913. It will be seen that for the three causes of Death there given there has been a slight drop in the rate in each instance.

There has been no marked increase in any particular cause of death, the slight increase over 1912 not being due to any one cause.

14. It would certainly tend to more efficient certification of the Causes of Death, if two kinds of Death Certificates were adopted, one to be given to the nearest relative or friend, the other to be sent to the District Registrar or Medical Officer of Health. The former would contain a certification of the fact that the person was dead and, if necessary, a statement in general terms of the cause of death. The latter should be a confidential document and should give as precisely as possible the duration and type of the final illness and the actual cause of death.

*The standardized death-rates (formerly called corrected death-rates) are the rates which would have been recorded had the sex and age constitution of the populations of the several areas been identical with that of England and Wales as enumerated in 1901.

CHART C



DEATH-RATES
of
RESPIRATORY DISEASES
(excluding Phthisis)
1902-1913.

PHTHISIS DEATH-RATES
1902-1913.

CANCER DEATH-RATES
1902-1913.

At present death certification would seem to be most exact when the certificate is sent from an Institution, the reason being that the person signing and certifying is not, as a rule, the family doctor of the relatives of the deceased, and so his love for scientific exactitude is not overborne by his sympathy with those who may be also personal friends.

Few general practitioners, under prevailing conditions, care to certify that a contributory cause of death was such a disease as Alcoholism, Delirium Tremens, or other disease that appears to cast a moral reflection upon the life of the deceased.

Instead they employ some general term such as Heart Failure or give only the terminal disease, such as Bronchitis.

MORTALITY IN CHILD-BIRTH AND IN INFANCY.

15. The figures for the mortality in child-birth are the same as in 1912. One death occurred from Puerperal Fever and three from other Accidents or Diseases of Parturition or Pregnancy.

The Midwives as a whole appear to do their work well and efficiently, but there are still a few women who need careful supervision. This work is in the hands of the County Authorities, but undoubtedly the visits of the Health Visitor to all new-born infants have a very beneficial effect upon any tendency to laxness upon the part of the Midwives.

At first her visits were not welcomed in many instances, particularly among the more ignorant, but so soon as it was realized that she desired to help and not "spy about" and report, her visits were looked forward to, and now are constantly requested.

16. In March Miss Sasse, who had been acting as a part-time Health Visitor, was appointed a full-time Officer acting under the direction of the Medical Officer of Health.

Her visits to the homes of new-born infants continues as previously except that in cases where a doctor is in attendance no first visit is paid, but the second and third visits are paid if the doctor is no longer in attendance. It became advisable to pay these visits, as it was found that some parents considered them-

selves neglected unless the Health Visitor called ; also occasionally when a baby was not thriving as it should a doctor has asked that the services of the Health Visitor should be given to the mother to assist her in feeding and caring for the child.

17. The leaflets upon feeding infants are much appreciated, and often parents ask for another copy, a previous one having been lost or destroyed.

18. In 1912, undoubtedly owing to this extra advice and care given to mothers and new-born infants, the Infantile Mortality rate fell from an average of 92 for the five preceding years to the unexpectedly low figure of 64. That is to say, instead of 92 infants dying out of every 1,000 born, in 1912 only 64 died, a saving of 28 lives.

19. It was hoped, but hardly expected, that this record would be kept up. Not only has it been maintained, but even surpassed. In 1913 the rate fell still lower, to 60 per 1,000.

20. To produce this rate 53 deaths occurred, and of these 53 one may call 24 unavoidable, because they were due to congenital malformation or debility from birth.

No one cause accounted for any great number of the other deaths, as is well shown in Table IV. at the end of this report. Five babies died from Whooping Cough and five from Convulsions, six from Bronchitis and four from Diarrhœa. Thus twenty more are accounted for ; the remaining nine died from various causes.

21. The death rate of Illegitimate Infants was more than twice that of Legitimate Infants. Out of 842 legitimate children 48 died, giving a rate of 5·7 per cent. But out of 40 illegitimate children 5 died—a rate of 12·5 per cent.

22. Information is obtained by the Health-Visitor at the time of her visits upon the nourishment supplied to infants, and

the methods of feeding. This information is set out in tabular form below :—

504 First Visits.

Breast Fed	455	Boat-Bottles used ...	7
Cow's Milk	4	Long tube Bottles used...	0
Condensed Milk	1		

In 152 further cases a doctor was attending and no first visits were paid.

671 Second Visits.

Breast-Fed	631	Left the town	11
Cow's Milk	20	Boat-Bottles used ...	36
Patent Food	1	Long-tube Bottles used	0

In eight cases it was found that a doctor was in attendance.

606 Third Visits.

Breast-Fed	546	Left the town	20
Cow's Milk	28	Boat-Bottles used ...	48
Condensed Milk or Patent Food	10	Long-tube Bottles used...	1

In two cases a doctor was in attendance.

The visits were paid at the same time as in 1912. The first visit being paid during the first week, but after the third day. The second was paid at the end of the first month, and the third when the child was three months old.

Special visits were paid to the mother who was using the long-tube bottle, and after the sixth she was persuaded to give it up, no doubt to the very great benefit of her child.

23. If at any of the visits the Health Visitor finds that a doctor is in attendance, no attempt is made to obtain information, nor is any advice upon feeding or infant care offered. But occasionally a doctor has asked that the visits of the Health Visitor might be continued. In such instances the request is always complied with.

24. It is very gratifying to find the very high proportion of breast-fed babies. A few of these are also fed upon cow's milk, this accounting for the number of bottles used being higher than the number of children receiving other forms of food.

25. Similarly the heading cow's milk includes cow's milk diluted with water or barley water.

26. The number of First, Second and Third Visits do not coincide, as many of the second and third visits are paid to children who were born in the previous year, and other visits are not due until 1914.

27. Whenever it is found that the mother is out at the time of the visit further visits are paid until she is found at home. Also 52 special visits to ailing infants or for similar reasons were paid during the year.

28. Particular attention has been given to the employment of comforters. It is unlikely that this method of quieting a crying child will be readily given up, but the attendant evils of the usual comforter may be very greatly diminished.

Parents can be taught to keep them clean and to fasten them to the child, and not, when they drop in the gutter, just give them a wipe and pop them back in the baby's mouth.

29. As infant care and management becomes more generally understood, parents will find that it is unnatural for a baby to cry half the day and half the night. Instead he should be a rosy, smiling creature who only cries when hurt or hungry, and who scorns such shams as the mis-called comforter.

NOTIFICATION OF BIRTHS ACT.

30. This Act continues to work smoothly and no difficulties have arisen during the year. In 60 instances births were not notified in accordance with the Act. In most cases when the attention of the parent and the person in attendance upon the mother was called to the omission, a reasonable excuse was offered and no further action deemed necessary.

31. But in one instance it was deemed advisable to prosecute parent for non-notification.

In the previous year he had been communicated with for having failed to notify a birth, and upon this occasion he had been reminded that it was necessary, but again failed to do so.

The Magistrates considered that the law would be satisfied upon the defendant paying the costs and that the publicity obtained would fulfil the object of the prosecution.

32. The following table gives a comparison of the years in which the Act has been in force and the number of still-births notified :—

	1911	1912	1913
	May to Dec]		
Number of children born alive and notified in accordance with the Act...	... *549	*754	*848
Number of children born alive and not notified in accordance with the Act ...	94	145	60
Number of still-births notified ...	... 15	37	138

*As these figures refer to notified births, they are not the same as the figures given for registered births.

INFANTILE DIARRHŒA.

33. As no continuously hot weather was experienced during the summer months, the number of deaths from Infantile Diarrhœa was not high, though higher than in the previous year.

During 1912 only one infant died from this cause, during 1913 five infantile diarrhœa deaths occurred.

34. Chart D is repeated, and the slight increase of deaths from Diarrhœal Diseases is apparent. But the chart also shows that the rate for the total Infantile Mortality for the year was not adversely affected thereby, the rate falling from 64 per 1,000 children born to 60 per 1,000.

35. The number of deaths of infants certified as being due to Atrophy, Debility or Marasmus is again only six. This figure and the one under the heading Diarrhœa is the one chiefly affected by the work of the Health Visitor among new born infants. The

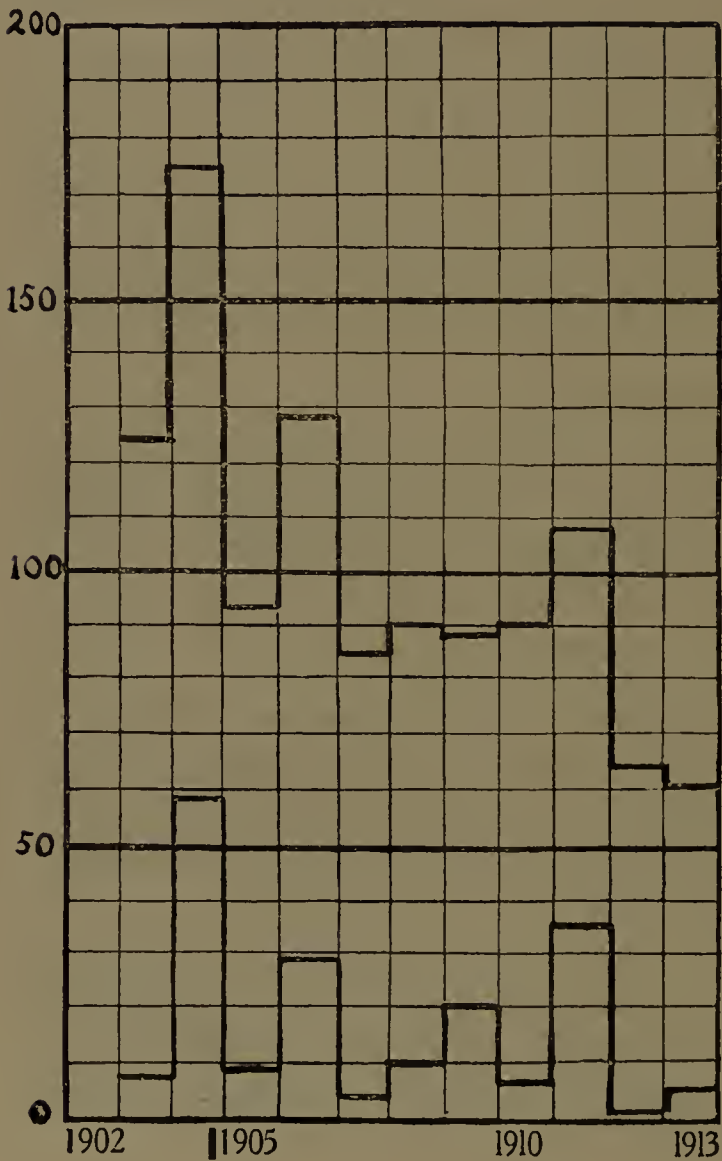
CHART D.

1910 1913



MEAN
TEMPERATURE OF
4ft. EARTH
THERMOMETER
DURING
AUGUST AND
SEPTEMBER.

RATES PER 1,000 BIRTHS



INFANTILE
MORTALITY
RATES.

INFANTILE
DEATHS
FROM DIARRHOEAL
DISEASES.

manner of feeding and the kinds of food supplied being the chief causes of these diseases or conditions that ultimately cause death.

36. As in previous years during the summer months leaflets upon the Prevention of Infantile Diarrhoea were taken to the parents of Infants born since the previous summer.

These leaflets are not simply left at the door, but at the visit their contents are explained to the mothers, and if a mother is not at home another visit is paid. About fifty per cent. of the leaflets are left at the time of the visits paid under the Notification of Births Act, but in addition to these 377 visits especially for this purpose were paid.

37. In Tables on page 17 is set out the manner of feeding of infants visited under three months old.

In the following Table similar facts are given with regard to children of over three months and under one year.

How Fed.		3-6mths.	6-9mths.	9-12mths.
Breast-Fed ...	...	51	84	99
Cow's Milk ...	...	2	11	17
Condensed Milk ...	...	1	2	0
Patent and other Foods..		0	2	10
Methods of Feeding—				
Boat Bottles ...	...	4	19	18
Long Tube Bottles ...	...	0	1	0
Spoons ...	...	0	0	10

38. The Long Tube Bottle is all but extinct in Colchester ; may it never be revived. In 1912 the Health Visitor found five mothers still given to this unhealthy practice. In the year under consideration there were but two, and one after some persuasion gave it up. Thus after less than ten years' constant insistence upon this point the object has been gained, and Colchester babies no longer have to suck the stale and fermenting dregs of the last feed from the long tube before getting the pure milk out of the bottle.

It will be seen on page 52 of this report that there are some 780 out-workers, that is to say, persons doing work in their own homes for an employer. Of these at least 750 are engaged in making wearing apparel. This does not include the very large number of young persons who work in the clothing factories themselves.

The effects of this type of work upon so large a proportion of the inhabitants do not appear to be deleterious.

42. Enquiries have been made for some years past into the occupations of all persons suffering from Consumption, and it has been found that neither the home-workers nor the factory hands carrying on this occupation suffer to any abnormal degree from Pulmonary Tuberculosis.

Poor-Law and Hospital Relief.

43. The Guardians of the Poor expended the sum of £4,625 0s. 10 $\frac{3}{4}$ d. upon In-maintenance for the year ended Michaelmas, 1913, an increase of £385 0s. 11 $\frac{1}{2}$ d. above the amount spent in the previous twelve months. Upon out-door relief a sum of £2,542 0s. 10 $\frac{1}{2}$ d. was spent, being a reduction of £3 9s. 1 $\frac{3}{4}$ d. when compared with the out-relief for 1912.

At the Infirmary additional accommodation has been provided for male consumptives by the conversion of the old school house into a ward for this purpose.

44. The number of beds available throughout the year at the Essex County Hospital, which is situated in Colchester, was 100. The average number of patients who occupied these beds was 87, an increase of 3 over the average of 1912. The number of new out-patients treated was 2,454, a decrease of 292, and the total number of out-patient attendances was 7,971, a decrease of 311.

WATER SUPPLY.

45. The Lexden Springs and Artesian Well continue to provide an excellent and pure water supply to the town. No change was needed during 1913, and there is certainly an ample supply of water from both these sources for many years to come.

The water from the Lexden Springs was regularly examined each month and, as the accompanying table shows, was as regularly found to be eminently satisfactory.

Bacteriological Analysis of the Colchester Water Supply.

Date of Sampling.	Source.	Number of Organisms developing per C.C. at		Bacillus Coli.		
		37°C (for 2 days).	22°C (for 3 days).	1 c.c.	10 c.c.	50 c.c.
January 14th..	.. Lexden Reservoir	2	2	—	—	—
February 19th	.. "	1	4	—	—	—
March 13th ..	.. "	1	2	—	—	—
April 10th ..	.. "	1	3	—	—	—
May 22nd ..	.. "	0	2	—	—	—
June 12th ..	.. "	7	10	—	—	—
July 16th ..	.. "	3	12	—	—	—
September 11th	.. "	0	10	—	—	—
October 22nd..	.. "	10	4	—	—	—
November 14th	.. "	2	11	—	—	—
December 10th	.. "	1	1	—	—	—

46. For one reason or another the water from several wells was examined during the year. Many of these were found to be unsatisfactory, as the accompanying table shows.

Bacteriological Analysis of Other Water Supplies.

Date of Sampling.	Source.	Number of Organisms developing per C C at		Bacillus Coli.		
		37°C (for 2 days).	22°C (for 3 days).	1 c.c.	10 c.c.	50 c.c.
March 13th ..	.. Artesian Well ..	13	56	—	—	—
Apri 17th ..	.. Friday Wood ..	10	30	—	—	—
June 14th ..	.. "	30	400	+	+	+
June 24th ..	.. Wells at Holly-	300	uncount-	+	+	+
October 24th ..	.. mead Cottages,	60	800	+	+	+
October 24th ..	.. Mill Road,	230	600	+	+	+
October 24th ..	.. Myland	1000	600	+	+	+
October 25th ..	.. "	400	1000	+	+	+
December 10th..	.. Oaks, Shrub End	125	1000	+	+	+
December 10th..	.. Well at King					
	Harold Road, Shrub					
	End	2000	1500	+	+	+
December 11th..	.. Wells at	370	610	+	+	+
December 11th..	.. Hollymead	280	500	+	+	+
December 11th..	.. Cottages	130	260	+	+	+
December 11th..	.. repeated	570	490	+	+	+

47. It is unfortunate that in many of the outlying parts of the Borough there is no main water supply, though the sewer has been continued into these districts.

Wherever the sewers are continued it should be understood that the water mains are also to be continued into the same district. From a health point of view good water is certainly as important as good sewerage, and yet many inhabitants who have the use of an excellent sewerage system are dependent upon shallow wells for their water supply.

Shallow wells are not, as a rule, satisfactory, and wherever possible the mains should be extended and these wells closed.

48. The report of the Waterworks Superintendent, Mr. Charles E. Bland, which is given below, shows the excellent position in which this undertaking stands.

REPORT OF THE WATERWORKS SUPERINTENDENT.

The following is a brief statement of the work of the above Department during 1913.

Mains.—The present total length of the mains in the Borough is 51 miles 663 yards. The extensions and replacements during the year totalled 800 and 60 yards respectively.

Houses Supplied—There are 9,496 houses supplied with the water of the Council, viz. :—

Within the Borough	...	...	9,374
Stanway District	...	...	122
			<hr/>
			9,496

This total is *exclusive of the Garrison and trade and business premises, stables, &c.*

Number of Persons Supplied.—The total number of persons receiving a supply from the Council's mains was 48,834.

This figure was arrived at as follows :—

Civilian population supplied in the Borough (taking an average of 4·8 people per house (Government census return) and allowing for empty houses), which includes the inmates and staff at Severalls Asylum,			
Mile End	...	...	43,943
Stanway District, based upon the above estimate			585
Average strength of the Military	...	...	4,306
Grand Total			48,834

Meters.—There are 227 meters in use in connection with trade and business, garden supplies, etc.

The meters have been thoroughly overhauled during the year and are now in excellent condition.

Hydrants.—The number of hydrants in the Borough for fire extinguishment, road watering and other purposes is 459.

These are periodically inspected and reported upon daily at the office. One man having to devote nearly all his time to keeping the hydrants and sluices in proper working order.

Waste Detection.—During the year 4,890 defective service pipes and fittings were discovered by our Inspectors. These were dealt with as follows :—

Repaired free of charge by our staff	...	4,295
Remedied by owners after notices had been served upon them	... ..	595
		4,890

Quantity of Water Pumped.—The total quantity of water pumped during the year was 383,799,000 gallons, viz. :—

				Gallons.
Pumped into the Water Tank, Balkerne				
Hill	...	...	...	338,261,000

	Gallons.
Surface spring water supplied by separate mains and reservoirs to Great Eastern Railway Company's North Station ...	45,538,000
	<hr/>
	383,799,000
	<hr/>

The Average Consumption per head per day for all purposes, including road watering and making, fire extinguishment, flushing sewers, trade and business purposes (but excluding the Great Eastern Railway Company's spring water supply) was 18·81 gallons.

Lexden Water.—These springs have well maintained the average yield. A bacteriological examination and report upon the water is made monthly by the Medical Officer of Health, and submitted to the Water Supply Committee, the reports being highly satisfactory.

Water Tower and Tank.—During the year under review the whole of the inside and outside of the tank, and all the iron and wood work was thoroughly cleaned and painted three coats, and the same was left in excellent condition.

Finance.—The revenue derived from the department still increases, and its financial position is a matter for congratulation, in my opinion.

(Signed) CHAS. E. BLAND,

Waterworks Superintendent.

DRAINAGE, SEWERAGE AND SCAVENGING.

49. The Acting Borough Surveyor has kindly sent me the following Report upon the work of this department during the year,

ACTING BOROUGH SURVEYOR'S REPORT.

I beg to submit my report upon the works carried out in the Roads and Drainage Department during the year 1913 :—

Drainage Works.—Glazed stoneware sewer pipes have been laid as follows :—

Crouch Street	...	...	640	lin. ft. of 15 inch (relaid).
St. John's Street	...	...	196	„ „ 15 „ „
Defoe Crescent	...	...	1443	„ „ 9 „
Head Street...	...	...	556	„ „ 9 „ „
Mill Road	...	...	322	„ „ 9 „
Butt Road	...	...	86	„ „ 6 „
			3243	„
Maldon Road (storm overflow)	1364	„	2ft. 6in. diam. concrete tubes	
Total			4607	lin. ft.

11 manholes, 1 lamphole, and 1 flushpipe have been constructed.

The total length of sewers in the Borough is now 62 miles 5 furlongs 20 $\frac{2}{3}$ yards.

Buildings and Drains.—109 plans have been submitted to the Council, representing 57 dwelling houses, 4 public buildings, 6 workshops, 40 additions to buildings, and 37 other buildings.

50 dwelling houses, and 47 other buildings have been erected.

97 houses, old and new, have been provided with new drains and sanitary fittings.

Buildings and drains have necessitated 1,228 inspections.

All new drains have been subjected to a water test before being passed for use.

Maintenance of Roads.—The main and other roads in the Borough have been kept in a good state of repair with broken granite, broken Kentish ragstone, Kentish sifted red flints, and local stone rolled in with steam rollers.

Footpath Paving, Kerbing and Channelling.—The following have been laid down in various parts of the Borough :—

1,658	square yards of cement concrete paving
407	„ „ York flagging
1,505½	„ „ tar paving
279½	„ „ granite Yorkstone, ragstone and cement crossings
148	lineal yards of York kerbing
647	„ „ granite kerbing
833	„ „ granite, ragstone, Yorkstone and concrete block channelling

Removal of Refuse and Cleansing of Streets.—The Council have caused to be removed :—

10,403	cart loads of house refuse
1,044	„ trade refuse
531	„ garden refuse
935	„ sewage from deadwells and privies
1,477	„ slop from street gullies
7,776	„ road scrapings and sweepings, and
22,130	„ truck loads of horse droppings and other refuse from streets and roads

All refuse has been removed from the Camp and Barracks, and other War Department properties by Messrs. Colliers, Ltd., under contract with the Council ; and from 320 houses in the village and district of Lexden by arrangement with a local farmer.

Street and Roads Watering.—10,587,880 gallons of water have been used for street and road watering and road making.

Treatment of Roads for Prevention of Dust.—152 tons of prepared tar were used during the summer months on the principal roads of the Borough for the prevention of dust.

Sewerage Outfall Works.—503,605,900 gallons of sewage have been pumped into the tanks at these Works, equal to an average daily flow of 1,379,742 gallons. After precipitation a residue has

been left of 22,197 tons, approx. of semi-solid sewage, which has been treated with lime, and reduced by pressing to 4,439 tons 7 cwt. approx. of portable manure, or sludge, and disposed of to farmers and others in the district.

(Signed) E. A. SLATER,
Acting Borough Surveyor.

Scavenging.

50. For some years special attention has been paid to the type of receptacle used for the collection of refuse in houses.

51. There still remain a few privy-ashpits, but the number of these year by year is being reduced and there are not now probably more than 80 in the Borough.

These and the old brick ashpits are gradually being replaced by the much more sanitary galvanized-iron dust-bin. Not only are the latter much more cleanly, but, having a proper close-fitting cover, rain and flies are kept out, and also the dustmen find them much easier to empty, so that in the same time they are able to make a larger round.

52. Wherever the Sanitary Inspectors find unsuitable receptacles being used for rubbish, they require a proper bin to be provided. During the past seven years bins have provided in this way, by far the greater number having been provided since 1910.

53. At the present time about three quarters of the houses in the Borough have proper sanitary dust-bins.

54. The refuse is collected once a week under the directions of the Surveyor in the greater part of the district. But on War Department land there is a daily collection carried out by a Contractor, and the refuse at Lexden is also collected under contract.

55. The War Department refuse is conveyed out of the district; the rest is disposed of in tips, situated in sparsely populated parts of the Borough, except that collected at Lexden which is spread upon agricultural land.

The method of disposing of house refuse in tips is not injurious so long as the tips are some way from any inhabited houses and provided that the land is not wanted for many years for building purposes. But tips, even the largest, quickly fill up and it becomes increasingly difficult to find new suitable places to be used as fresh tips, and it is necessary to go further afield, so that the time taken in going to and from the tips becomes longer and longer.

56. There is only one way in which these drawbacks can be avoided and that is by the erection of a Refuse Destructor ; this is by far the best way of disposing of rubbish. Once put up and working, the annual cost is not great and the need for tips done away with.

57. There still remain a few cesspools in the Borough. In all there are probably not more than 35, the majority of which are in connection with houses beyond the limits of the main sewers.

REPORT OF THE SANITARY INSPECTOR.

I have the honour of presenting my Eighteenth Annual Report.

Complaints as to Nuisances.—The number of complaints received during the year was 545. The premises to which these complaints refer are visited and inspected, and where a nuisance exists calling for abatement, an informal notice is served upon the person responsible for the abatement of the nuisance. Where foul accumulations occur, or nuisances from the keeping of animals in a filthy state, are found to exist, notices are served upon the occupiers causing such nuisances, and such notices usually have the desired effect.

Drainage Work and Supervision.—The supervision of drainage work, whether in the repair of old drains or the construction of new drains, necessitates many visits before the work is finished.

When an entirely new system of drainage has to be constructed, such drains are always tested with water in order to see that every joint is sound before the drains are covered up. All drains require flushing and cleansing periodically, as they are liable to become foul and choked, and when the owner has properly constructed the drains of his property the occupier should feel it to be his duty to keep them free from nuisances.

Infectious Diseases and Disinfections.—Whenever a case of a notifiable disease is received, the premises are visited by the Medical Officer of Health or myself, and where the case is one for removal to your Infectious Diseases Hospital, this is carried out without any delay. The premises are afterwards thoroughly disinfected and all bedding, clothing, etc., is removed and subjected to steam disinfection. Where a death has occurred from Phthisis in a house, the bedding also is removed and steam disinfected. The room is afterwards disinfected and cleaned.

The total number of beds and other articles removed and steam disinfected was 1625.

House to House Inspection.

The Housing (Inspection of District) Regulations.—A systematic house to house inspection still continues. The system was inaugurated some years ago and the work is carried out by my Assistant. By this method of inspection many structural defects are discovered. These defects are first dealt with by informal notice, then, if the owner fails to comply, by a statutory notice. As a result of the above inspections several houses were specially inspected by me under the Housing, Town Planning, etc. Act, 1909, and other houses which came in routine work were also inspected and reported upon under the same Act. 37 such houses, owing to their unsatisfactory condition from a structural point of view, were, in my opinion, in such a state as to render them unfit for human habitation. These were brought to the notice of the Borough and Port Health Committee.

The tabulated statement on page 48 gives a brief idea of the

defects discovered and dealt with and the streets that have been inspected.

A large number of houses have been inspected apart from the House to House Inspections. Under the Home Workers Orders, houses are inspected and any premises contiguous—i.e., in the same yard. Houses are also inspected where there has been a notifiable infectious disease reported, and special inspections are made of houses where no complaints have been received. During the year the total number of houses inspected in the Borough was 3,260.

Steady progress is being made to get old ash-pits abolished and the substitution in lieu thereof of sanitary dust-bins. Many owners now comply with the informal notice and supply to their premises dust-bins of an approved pattern before I make a final report to the Health Committee.

There has been a diminution of bins supplied to premises this year, the number being 543. Probably in 1912 the high water mark, with reference to the number of bins that were supplied, was reached. I anticipate during the present year causing an inspection to be made of houses, a list of which has been supplied to me through the Surveyor's Department, which are reported to be without proper ash-pit accommodation, and I hope to report that a larger number of proper receptacles have been provided during 1914 than were provided during 1913.

I append a table which gives at a glance the progress made in this very necessary sanitary work, and with the present speedy collection and removal of house refuse a fruitful medium for the dissemination of harmful Bacteria is removed.

Dust bins supplied to houses in 1907	...	13
„ „ „ „ „ 1908	...	61
„ „ „ „ „ 1909	...	65
„ „ „ „ „ 1910	...	103
„ „ „ „ „ 1911	...	374
„ „ „ „ „ 1912	...	1,202
„ „ „ „ „ 1913	...	543

Registered Common Lodging Houses.—There are three of these in the Borough and they have been regularly visited. They are kept clean and their general management is satisfactory. No case of a notifiable infectious disease has been reported from them during the year.

Tents, Vans, Sheds and similar structures have been inspected as in past years. I have inspected any vans which have entered the Borough, in order to find out if any overcrowding existed, and none was found to exist.

I visited a tent in a field near East Street where a person was notified as suffering from a notifiable disease. Upon entering the tent I found, by its crude structure, that it was unfit for human habitation. A young man and a young woman were the occupants and I served a notice upon the occupier informing him that the tent was unfit for human habitation. Within 14 days he packed up and left the neighbourhood.

Offensive Trades.—The premises coming under the definition of offensive trades, such as gut scrapers, rag and bone dealers, fat melters, bone and skin dealers, have been regularly visited. I regret to say I have not been able to visit all the premises which were used for fish frying at the time of the passing of the Bye-laws, in order to see if each of the occupiers had complied therewith. I hope to be able to make an early inspection for the purpose of ascertaining if there are any premises which do not comply with your Bye-laws.

One person made application for his premises to be registered for fish frying purposes, which was subsequently granted. Three persons have ceased to carry on the business of fish frying during the year, and one person has discontinued the business of a tanner and leather dresser.

Slaughter Houses.—The number of Licensed and Registered Slaughter Houses remains the same as last year, viz., 10 Registered, 10 Licensed. I usually visit at irregular intervals and as near as possible to the time when slaughtering is in operation.

Food Inspection.—I have, as in past years' periodically inspected butchers' shops, fish shops, grocers' shops, ice cream premises, etc., where food is prepared, or exposed for sale, or in preparation for sale. On Saturday evenings I invariably visit stalls, barrows, etc., on which fruit, vegetables, and other foods are exposed for sale. In one instance in the High Street I seized 14lbs. of walnuts as being unfit for human consumption. These nuts were condemned and destroyed by an order of a magistrate.

The table given below states the amount of food which has been seized, or surrendered, and destroyed as being unfit for human consumption—

52	Sheep's Plucks.
4	„ Livers.
2	Bullocks' Livers.
21	cwts. of Carrots.
1	Kit of Crabs.
3	Lobsters.
10	Wings of Skate.
1	Basket of Shrimps.
15	Cod-fish.
6	Dabs.
1	Box of Herring.
119	Whiting.
2	Pigs.
24	Baskets of Plums.
1	Barrel of Pears.
1	Stone of Walnuts.

Public Health (Regulation as to Food) Act, 1907.—Since my appointment as the inspector under the above regulations I have made periodical visits to the Hythe Quay in order to examine any food stuffs entering by way of the port. The principal food stuffs examined during the past year have been wheat, biscuits, groceries, oranges, cheeses, eggs, ox-tongues, etc. No seizures were made.

STATEMENT A.

				Public Health Acts.	Factory and Workshop Acts.
Complaints received	..	..	..	542	3
Visits made to Slaughterhouses	..	..	..	459	0
Visits made to Bakehouses	..	..	..	6	115
Visits made to Dairies and Milkshops	..	..	..	185	0
Visits made to Cowsheds	..	..	..	77	0
Workshops Inspected	..	..	..	56	409
Workshops cleansed	..	..	..	0	20
<i>Housing—</i>					
Houses Cleansed under P.H.A.	..	..	..	46	6
Houses Disinfected	..	..	..	205	0
Overcrowding abated	..	..	..	11	2
Houses Closed	..	..	..	9	0
Defective Roofs Repaired	..	..	..	36	14
Rain Water Pipes and Gutters renewed or repaired	..	..	..	50	7
Cesspools abolished	..	..	..	11	0
<i>Drainage and Sewerage—</i>					
Houses connected with Sewers	..	..	..	10	0
Privies Abolished	..	..	..	11	0
Privies Converted into Water Closets	..	..	..	10	0
Privies and Water Closets Repaired	..	..	..	45	14
New Closets Built	..	..	..	24	0
Water Supply for Closets Provided	..	..	..	33	0
Defective Water Fittings for W.C.'s Repaired	..	..	..	68	20
Filthy Closets Cleansed and Limewashed	..	..	..	29	6
Closets Unstopped	..	..	..	73	5
New Closet Pans or Apparatus Fixed	..	..	..	52	5
New Seats and Risers Fixed in Water Closets	..	..	..	39	2
New Floors Laid or Repaired in Water Closets	..	..	..	46	2
Drains Unstopped	..	..	..	72	9
Drains Repaired	..	..	..	27	3
Old Drains Abolished	..	..	..	10	0
New Drains Laid	..	..	..	26	0
Disconnection Syphons Fixed	..	..	..	14	0
Disconnection Chambers Built	..	..	..	14	0
Fresh Air Inlet Pipes Fixed	..	..	..	14	0
Foul Air Exit Pipes Fixed	..	..	..	15	0
Bell and other Insanitary Traps Abolished	..	..	..	37	0
Trapped Yard Gullies Fixed	..	..	..	76	1
Defective and Insufficiently Ventilated Soil Pipes	..	..	..	5	0
Sink Waste Pipes Trapped or Disconnected from Drains	..	..	..	3	0
Bath and Lavatory Waste Pipes	..	..	..	2	0
Ashpits Abolished	..	..	..	36	5
Ashbins Provided	..	..	..	465	78
<i>Nuisances</i>					
Manure and Offensive Matters Removed	..	..	..	91	4
Defects Reported to Borough Surveyor	..	..	..	67	0
Animals Improperly Kept or Removed	..	..	..	50	1
Nuisances Detected or Reported	..	..	..	708	200

Nuisances Abated	672	190
Notices Served	703	200
Other Blemishes Abated	226	16
<i>Other Matters—</i>		
Yards Paved	5	0
Seizures or Surrenders of Unsound Meat, &c. ..	43	0
Samples of Water Taken for Analysis ..	1	0
Wells Closed	1	0
Water Supply Provided for Domestic Purposes ..	6	0
Leaky Taps Repaired where drawing from Public Mains 36		15
Ventilation Provided	34	10

I have pleasure in again recording that in no case was it necessary to institute legal proceedings to procure the abatement of a nuisance.

DRAIN TESTING—STATEMENT "B."

The following table shews the locality of Sewer Gas escapes :—

Into Kitchens and Sculleries	3
„ Cellars	4
„ External Water Closets	10
„ Internal Water Closets	6
„ Dining Rooms and other parts of house ..	2
From Heads and Joints of Rain Water Pipes ..	5
„ Joints of Soil and Vent Pipes ..	17
„ Defective Drains	10
„ Defective Traps	5

As I mentioned in my Annual Report for 1912, I have again, during 1913, directed special attention towards many of the present hand-flushed water closets in the Borough with a view to enforcing a proper water supply and flushing apparatus being provided in connection with them. I am pleased to report that some owners have complied with the notices served upon them, while others have ignored such notices or were unwilling to comply with them. It is my intention to report to you in the near future such closets as are without a proper water supply or flushing apparatus, especially where I find dirty closet pans and an accumulation of human excreta deposited therein.

Where this state of things exists owing to the absence of a proper water supply and flushing apparatus, I am of opinion that such closets are insufficient.

Factory and Workshop Acts.—The total number of Workshops on the register, including bakehouses, is 576. My assistant gives particular attention to the duties to be carried out under the above Acts. The premises to which particular attention is given are:—Bakehouses, domestic workshops, laundries, dressmakers and milliners, tailoresses, shirt-makers, boot-makers, board tailors, sack repairers, upholsterers, basket-makers, etc. Lists are sent in under the act twice per year, giving the names and addresses of out-workers employed by the firms sending in such lists. 100 Lists were received giving the number of persons so employed (i) Within the Borough—778. (ii) Outside the Borough—591. The total number of outworkers' premises inspected during the year was 640.

My assistant also performs other duties, such as House to House inspection, and renders me such assistance as I may from time to time require.

In conclusion, I beg to thank the Chairman and Members of the Borough and Port Health Committee for the continued support that they have given me in the carrying out of the varied duties connected with the Public Health Department.

I am, Gentlemen,

Your obedient servant,

THOMAS WELLS,

Inspector of Nuisances.

COMMON LODGING HOUSES.

58.—There are three Common Lodging Houses in the Borough. All are well and cleanly kept, and no cases of Infectious Disease were reported from any of them.

The three houses are situated in Vineyard Street, on East Hill, and in Magdalen Street. They are constantly visited by the Sanitary Inspector and no complaints have been received concerning them.

OFFENSIVE TRADES.

59. The Offensive Trades and Businesses now carried on in the Borough are given in the list below :—

Fish Frier ...	...	...	...	15
Gut Scraper ...	...	...	...	2
Fat Melter or Extractor	...	...	...	1
Rag, Bone and Skin Dealer	...	...	...	4

60. The placing of Fish Frying among the Offensive Trades has been of decided utility. Until this was done small businesses were started, frequently in unsuitable premises, and carried on in a manner that quickly gave cause for complaint to the neighbourhood.

These small businesses were often unsuccessful, and after remaining open for a few months found it necessary to close.

61. So soon as these trades had been declared Offensive Trades, Bye-laws dealing with them were made. These came into force in 1912, and have been of much service in making several businesses that were not carried on in as sanitary a way as they should have been, alter their methods and improve their premises to comply with the Bye-laws.

SCHOOLS.

62. There is still one school in the Borough with no water supply of its own. All the other elementary schools are supplied with water from the town mains, but St. John's School, Ipswich Road, has no water supply at all, all the water used in the school both for drinking and washing and cleaning having to be brought from the vicarage well some 80 yards distant.

This arrangement is not a good one, and as the school has recently been enlarged, a well should be sunk for the use of the school only.

63. The increase in the lavatory accommodation at Barrack Street School is not yet an accomplished fact, but the matter has been taken in hand and the work is shortly to be undertaken.

64. Old Heath School has been greatly enlarged and improved to cope with the increasing population in this district.

65. These and other improvements and alterations are considered at greater length in the separate report of the School Medical Officer.

MILK SUPPLY.

66. The system of having all the milking herds examined twice yearly by a veterinary surgeon has been given up owing to the necessity for farmers now to notify cases of Tuberculosis occurring in their herds under the new Board of Agriculture Regulations.

In order to find out if the Tubercle Bacillus was present in the milk supplied to the inhabitants, milk from nine different herds of cows was examined by inoculation. In no case was the Tubercle Bacillus discovered. This method is undoubtedly one of the surest ways of discovering the presence of Tuberculosis in milch cows, and from year to year the milk from the various herds in the Borough will be examined.

67. As in previous years, the Sanitary Inspector has paid periodical visits to all the dairies and cowsheds.

At these visits he made certain enquiries and the results of these enquiries are set out below, with the number of cows, cow sheds and dairies, etc., in the District.

Number of Dairies, Cowsheds, etc., in the District.

			Persons
Cowsheds.	Dairies.	Milkshops.	Registered.
46.	37.	73.	103.

Total number of Cows supplying milk for sale in the district or elsewhere, 449.

Result of Enquiry into the use of Tuberculin and Methods of Milking.

		Yes.	No.	Doubtful.
1.	Are your cows ever tested with Tuberculin ?	2	22	—

	Yes.	No.	Doubtful.
2. Does the Farmer insist upon the Tuberculin test before buying a cow?	—	23	1
3. Do the Milkers wear overalls while milking?	18	6	—
4. Do the Milkers always wash their hands before milking?	24	—	—
5. Are the cows ever groomed? ...	7	13	4
	Dry.	Wet.	Doubtful.
6. What is the method of Milking, wet, or dry?	23	—	1
7. If dry, is stripping also done with dry hands?.....	16	4	4

68. The results of this enquiry are most interesting and somewhat unexpected. Very few farmers appear to recognize the value of the Tuberculin Test. They know quite well that a Tubercular cow is practically valueless, yet they do not avail themselves of a simple test which will, with great certainty, tell them if they have an animal so affected in their herd. Such an animal is almost certain to affect others if not discovered early, and, also, when discovered before the disease has spread, the greater part of the carcase will be valuable as food.

69. Cleanliness in milking is of the greatest importance, and from the table given above it can be seen that the leaflets, copies of which were given in the 1912 report, are doing something towards persuading farmers to adopt methods of strict cleanliness among their milkers. Not a sufficient number of cows are properly groomed yet, and it is doubtful if the grooming which many of those marked as "groomed" get is as thorough as it should be.

The replies to items number 6 and 7 are very possibly fallacious, particularly those to number 7. There are many ways of wetting the hands before beginning to milk, and some of the negative replies may refer to the more objectionable. As an old milker once said when asked if he wetted his hands before beginning to strip (*i.e.*, to remove the last part of the milk from the udder), "No, I never wet my hands, I just dip them in the

milk." No doubt what he meant was that he did not spit upon them. Those days are certainly past, but in the replies to number 7 very probably what is meant by stripping with dry hands is that the milker does not actually moisten his hands in any way, but that they have become moistened by the milk in the process of milking sufficiently to enable him to strip without any special moistening.

70. Whenever a new cowkeeper or dairyman is registered in the Borough copies of the leaflets, which were reprinted in the report for 1912, are sent to him. In this way and by urging more attention to cleanliness during periodical visits the standard of cleanliness in many cow-sheds has been raised. But undoubtedly the time has arrived, and is overdue, for an Act of Parliament dealing with the milk trade. Such an Act would interfere little, if at all, with the up-to-date farmer who keeps his cows in a proper manner, but it would compel the more slovenly cow-keeper to bring his methods into conformity with modern ideas.

71. To deal with only one point that needs immediate attention. Many farmers continue the bad practice of having the cow-yard just outside the milking sheds at least a foot deep in manure. This comes about from the sheds being cleaned out into the yard, and the manure and straw left there for the cows to trample down. In the winter such a yard is a mass of liquid manure, and the cows' feet and legs become covered with it each time they are brought in to be milked. The milking sheds thereby are made filthy and the atmosphere impregnated with faecal effluvia. In the summer the yard is a mass of dry manure and is a perfect breeding ground for flies, which at milking time make delightful trips between the milk pails and the manure heap. As the cows are driven in they stir up the dust in the yard, and over and over again it has been shown that much of this dry manure settles down into the milk.

72. A moment's thought will convince anyone who knows the methods of production, that milk, the beverage of infants and invalids, is by far the dirtiest thing we drink.

OTHER FOODS.

73. Meat inspection continues to as great an extent as the Sanitary Inspector is able. The time is getting very close when the staff of inspectors will have to be increased. A large amount of new work has recently been thrown upon the Health Department, and with the present staff any unusual increase, such as that caused by an outbreak of infectious illness, creates almost more work than can be managed.

74. In the Sanitary Inspector's report a detailed list is given of the meat and other foods condemned as unfit for human consumption.

The great majority of this food was surrendered by the owner, and in some instances dealers sent for the Inspector to surrender to him food that they considered unfit, it being the custom in some trades to credit the retailer with the value of food condemned by an Inspector or Medical Officer of Health.

75. This custom has much to commend it, for the retail tradesman has no reason to try and sell bad food if he knows that a note of condemnation from the Sanitary Inspector will relieve him of the cost of it.

76. The number of slaughter-houses and bakehouses remain the same as in 1912 :—

Slaughter-houses and Bakehouses.

SLAUGHTERHOUSES.		BAKEHOUSES.
Registered.	Licensed.	
10	10	45

These houses are all periodically visited and their general condition is fairly good. Many of them are old and need constant cleansing and white-washing. The owners are always ready to make any small improvements suggested and no infraction of the Bye-laws was found during the year.

SALE OF FOODS AND DRUGS ACTS.

77. The table below gives the results of the analyses carried out during the year :—

Samples.	Number of Samples.	Adulterated.	Nature of Adulteration.
New Milk	55	16	Fourteen, fat abstraction; 13·4, 6·7, 6·7, 3·4, 6·6, 10·0, 10·0, 10·0, 6·6, 10·0, 5·6, 10·0, 3·3, 3·3 per cent. respectively. Two, fat abstraction and added water, i.e., 18·3 per cent. fat abstracted and 5·9 per cent. added water, and 11·4 per cent. fat abstracted and 5·9 per cent. added water respectively.
Butter	10		
Preserved Cream ..	4		
Rice	4		
Sago	3		
Lard	3		
Chicory	1		
Bread	2		
Scotch Whiskey ..	4		
Beer (1), Ale (1), Porter (1), Stout (1) ..	4		
Malt Vinegar ..	3		
White Pepper ..	4		
Mustard	2		
Coffee	4		
Baking Powder ..	2		
Pearl Barley ..	2		
Essence of Almonds	1		
Drugs	10		
	118	16	

The Drugs consisted of 3 samples of Liquorice Powder, 2 each of Epsom Salts and Olive Oil, and 1 each of Camphorated Oil, Tincture of Iodine and Oil of Eucalyptus.

78. A further table is given below shewing the results of the Analyses of formal samples of milk that were not genuine, and the results of samples collected within a day or two from the farms from which these samples came.

No.	Formal Samples.		Farm Samples.	
	Fat.	Other Solids.	Fat	Other Solids.
1	2.6	8.7	{ 3.0 3.0	{ 8.5 8.6
2	2.8	8.8	2.8	8.5
3	2.9	8.5	{ Mixed milks, no therefore avail-	farm sample able
4	2.8	9.0		
5	2.7	8.8	2.7	9.0
6	2.3	8.0	2.5	8.0
7	2.7	8.7	2.8	8.8
8	2.7	8.5	2.9	8.7
9	2.8	9.0	3.0	8.8

PUBLIC HEALTH (MILK AND CREAM) REGULATIONS, 1912.

Report for the year ended 31st December, 1913.

1. Milk and Cream not sold as preserved Cream.

			Number of Samples examined for the presence of a preservative.	Number in which a preservative was reported to be present.
Milk	..	..	54	—
Cream	..	..	—	—

2. Cream sold as preserved cream.

(a). Instances in which Samples have been submitted for Analysis to ascertain if the statements on the label as to preservatives were correct.

(I.) Correct statements made	...	4
(II.) Statements incorrect	...	—
Total		4

(b). Determination made of milk-fat in cream sold as preserved cream

(I.) Above 35 per cent	...	4
(II.) Below 35 per cent	...	—
Total		4

(c). No instances where (apart from Analysis) the requirements as to labelling or declaration of preserved cream in Article V. (1) and the proviso (2) of the Regulations have not been observed, have occurred.

3. Thickening Substances.

No evidence of their addition to Cream or to preserved cream has been found.

HOUSING.

80. This subject in many parts of the country is causing acute anxiety owing to the scarcity of accommodation for the labouring classes.

At present there is no reason for alarm in Colchester, not only is there a good supply of houses, but others are steadily being built to house the increasing population.

Private enterprise is building these houses, and no doubt the investment pays its way or the supply would cease.

81. The buildings are not confined to any particular part of the town, though during the past year more new houses were built in the West Ward than elsewhere, as the accompanying table shows :—

Number of New Houses in each Ward.

North Ward	...	...	...	...	2
South „	...	...	...	...	16
East „	...	...	...	...	6
West „	...	...	...	...	26
					—
Total					50
					—

As the estimated increase of population is about 500 a year, this appears to give one new house to 10 persons. But it must

not be forgotten that there are always many empty houses and that existing houses are being enlarged, so that though the number of new houses does not at first sight appear enough, yet in practice it is found sufficient.

All new buildings are erected under the supervision of the Borough Surveyor and no new building may be occupied until its structure, drainage, etc., has been inspected and approved.

82. The Inspection of the District continues as in previous years and it is of interest to show how complete the survey of the Borough has been. In 1905 house to house inspection was begun and it is very probable that at the end of 1914 the whole of the poorer parts of the Borough will have been inspected.

The Housing, Town Planning, etc., Act of 1909 and the Housing (Inspection of District) Regulations, 1910, made some slight differences to the routine of the work, but these changes were not very great and it was quite possible to continue the work as previously.

Number of Houses inspected for Sanitary Defects since 1905.

1905	...	...	...	...	...	501
1906	...	...	...	...	...	931
1907	...	...	...	...	...	689
1908	...	...	...	...	...	548
1909	...	...	...	...	...	653
1910	...	...	...	...	...	742
1911	...	...	...	...	...	522
1912	...	...	...	...	...	583
1913	...	...	...	...	...	853
						— —
Total in 9 years						6,022
						— —

83. In 1913 more houses than usual were inspected and a table giving the kinds of defects found is set out below :—

Housing, Inspection of Districts.

Name of Street.	Number of Houses Inspected.	Premises in a Dirty Condition	Defective Drains.	Choked Drains.	Defective Water Closets	Defective Traps.	Number of Water Closets.	Number of Outside W.C.'s not supplied with Water.	Premises Damp and Dilapidated.	Overcrowding.	Animals improperly kept.	Other Nuisances.	Separate Larders.	Premises without covered Ashbins.
Lisle Road	105	1	..	2	..	..	105	..	3	..	..	25	10	1
Manor Road	40	..	..	..	..	..	40	7	3	..	2	9	7	10
Hythe Station Road ..	20	..	..	1	..	..	21	..	..	..	..	13	..	1
Kimberley Road	6	..	..	..	..	..	6	..	..	..	..	2	..	..
King Stephen Road ..	55	..	1	..	1	..	55	..	..	..	..	11	4	..
Middleborough	26	1	..	..	2	..	27	14	..	..	..	6	14	9
St. John's Green	35	1	..	1	..	..	32	28	3	..	..	8	4	4
Hythe Quay	20	1	1	2	3	1	19	8	1	1	..	9	7	9
Shrub End	62	1	..	..	..	..	17	5	4	3	..	45	15	59
Short Wyre Street ..	23	..	..	1	3	..	22	..	..	..	..	7	6	3
Long Wyre Street ..	62	2	2	4	16	2	64	16	4	..	..	24	10	4
Culver Street	80	1	..	..	3	..	58	9	..	1	..	18	16	19
Military Road	153	2	..	..	6	2	132	20	2	..	..	26	47	22
Winnock Road	104	..	..	..	1	3	104	20	1	..	..	27	50	17
Pelham's Lane	8	..	..	1	..	..	11	1	..	..	..	6	..	2
North Station Rd. (in part)	54	2	1	1	5	4	55	32	1	1	6	12	22	13
Total	353	12	5	13	40	12	768	160	22	6	8	250	212	173

84. A further statement is added summarising the whole work of the Health Department in relation to Housing.

Housing, 1913.

Number of houses 1901.....7,969. 1913 (approx.) 9,500

Number of houses visited and inspected :—

(1) owing to complaint ... 458

(2) owing to infectious disease ... 529

(3) during routine work (including (1) and (2)) ... 3,260

Number of Informal Notices served for sanitary defects 908

„ Statutory „ „ 61

„ Notices served for Overcrowding ... 13

„ „ „ Uncleanliness ... 46

„ „ complied with ... 862

Number of Dwelling-houses Inspected under Section 17 of the Housing, Town Planning, etc., Act, 1909...	890
Number of Dwelling-houses represented to the Local Authority with a view to the making of Closing Orders	10
Number of Closing Orders made	9
Number of Dwelling-houses the Defects in which were remedied without the making of Closing Orders	242
Number of Dwelling-houses which, after the making of Closing Orders, were put into a fit state for human habitation	4
Number of Demolition Orders made	5
Number of Dwelling-houses demolished by Owners after Closing Order had been made ...	8
Number of Dwelling-houses demolished after Demolition Order had been made	5
Number of Dwelling-houses demolished after inspection upon representations to the Owner	7

It should be explained that many notices for defects, or recommendations for closing, are carried over the end of the year. This accounts for the fact that several numbers that should coincide in the above list do not do so.

85. Many of the houses first closed and ultimately demolished were old houses that had been left to fall into a state of general disrepair and ultimately to ruins. The majority of these were unoccupied or used for storing lumber or as housing for chickens when adjacent to a neighbouring fowl run.

None of the houses demolished were of recent building and the defects present were those due to the lack of proper and timely repair.

86. Difficulty is sometimes experienced in judging the condition of a house as a whole. This difficulty is found in the case

of old mansions that have been altered almost out of recognition of their former plan, the alterations being made to adapt them to contain several families and give each a separate entrance. Do such alterations convert one house into several? Usually the landlord of such houses does very few repairs, and the tenants are left to do the best they can for themselves. Thus it happens that one tenant who is clean and careful and who takes care to mend the floor or roof directly it needs it, keeps his rooms in a fit state for habitation, whereas the slovenly tenant lets everything go to rack and ruin. When such a house is inspected it is particularly difficult to condemn the good tenant's rooms for the sake of closing those of the bad.

In dealing with such cases it has been found advisable, when the main structure of the house is good, to try, if possible, to deal with the defects bit by bit by informal, and if necessary statutory, notices. But in those cases where the whole skeleton of the house is bad, the apparently good has been condemned with the actually bad.

FACTORIES, WORKSHOPS, WORKPLACES AND HOMEWORK.

1.—Inspection of Factories, Workshops and Workplaces.

Premises.	Number of	
	Inspections.	Written Notices.
Factories, including Factory Laundries ..	91	13
Workshops, including Workshop Laundries..	288	44
Workplaces, other than Outworkers' premises included in Part 3 of this Report	30	10
Total.. .. .	409	67

During the year no prosecutions arose in connection with these inspections.

2.—*Defects found in Factories, Workshops and Workplaces*

Particulars.	Number of Defects.	
	Found.	Remedied.
Nuisances under the Public Health Acts :—*		
Want of cleanliness	20	20
Want of ventilation	10	10
Overcrowding	2	2
Want of drainage of floors .. .. .	..	..
Other nuisances	47	45
Sanitary Accommodation {	4	2
	insufficient,	
	unsuitable or	
defective, ..	2	2
	not separate	
for sexes ..	..	..
Offences under the Factory and Workshop Acts —		
Illegal occupation of underground bakehouse (s. 101) .. .. .	..	..
Breach of special sanitary requirements for bakehouses (ss. 97 to 100)	8	8
Other offences, excluding offences relating to outwork which are included in Part 3 of this Report .. .. .	..	..
Total.. .. .	93	89

*Including those specified in sections 2, 3, 7 and 8 of the Factory and Workshop Act, 1901, as remediable under the Public Health Acts.

It was not found necessary to refer any of these defects to H.M. Inspector, nor were any prosecutions needed.

3—Home Work.

Nature of Work.	Outworkers' Lists, Section 107.						
	Lists received from Em- ployers twice a year.			Lists received from Em- ployers once a year.			Notices served on Occupiers as to keeping or send- ing Lists.
	Lists.†	Outworkers.‡		Lists.	Outworkers.		
		Con- tractors	Work- men.		Con- tractors	Work- men.	
1	2	3	4	5	6	7	8
Wearing Apparel, making, etc.	80	..	1521	3	..	..	6
Cleaning and washing ..	..	..	..	..	..	..	..
Household linen .. ..	..	..	..	..	..	..	..
Lace, lace curtains and nets ..	..	..	..	..	..	..	..
Curtains & furniture hangings ..	..	..	..	..	..	..	..
Furniture and upholstery ..	12	..	18	1	..	..	..
Electro-plate .. ..	..	..	..	..	..	..	..
File making .. ..	..	..	..	..	..	..	..
Brass and brass articles ..	..	..	..	..	..	..	..
Fur pulling .. ..	..	..	..	..	..	..	..
Cables and chains .. ..	..	..	..	..	..	..	..
Anchors and grapnels .. ..	..	..	..	..	..	..	..
Cart gear.. ..	..	..	..	..	..	..	..
Locks, latches and keys .. ..	..	..	..	..	..	..	..
Umbrellas, etc.	2	..	4	..	..	..	..
Artificial flowers .. ..	..	..	..	..	..	..	..
Nets, other than wire nets ..	..	..	..	..	..	..	..
Tents .. ..	..	..	..	..	..	..	..
Sacks	4	..	11	..	..	..	..
Racquet and tennis balls ..	..	..	..	..	..	..	..
Paper, etc., boxes, paper bags..	..	..	..	..	..	..	..
Brush making .. ..	..	..	..	..	..	..	..
Pea picking .. ..	..	..	..	..	..	..	..
Feather sorting .. ..	..	..	..	..	..	..	..
Carding, etc., of buttons, etc. ..	..	..	..	..	..	..	..
Stuffed toys .. ..	..	..	..	..	..	..	..
Basket making	2	..	2	..	..	..	..
Chocolates and sweetmeats ..	..	..	..	..	..	..	..
Cosaques, Christmas Crackers, Christmas Stockings, etc. ..	..	..	..	..	..	..	..
Textile weaving.. ..	..	..	..	..	..	..	..
Total	100	..	1556	4	..	..	6

OUTWORK IN INFECTED PREMISES, SECTIONS 109, 110.—Wearing apparel, making, etc., instances, 10; orders made (S. 110), 10.

†The figures required in columns 2, 3 and 4 are the *total* number of the lists received from those employers who comply strictly with the statutory duty of sending *two* lists each year and of the entries of names of outworkers in those lists. The entries in column 2 must necessarily be *even* numbers, as there will be two lists for each employer—in some previous returns odd numbers have been inserted. The figures in columns 3 and 4 will usually be (approximately) double of the number of individual outworkers whose names are given, since in the February and August lists of the same employer the same outworker's name will often be repeated.

The lists were sent in fairly punctually and no instances were found of failure to keep or to permit inspection of the lists or of failure to send the lists.

The homes of outworkers are constantly inspected and in no case was it found that outwork was being undertaken in unwholesome premises.

4.—Registered Workshops.

Class.	Number.
Workshops on the Register (s. 131) at the end of the year.	
Bakehouses	45
Domestic Workshops	33
Laundries	11
Dressmaking and Millinery	72
Other Workshops	415
Total Number of Workshops on Register ..	576

5.—Other Matters.

Class.	Number.
Matters notified to H.M. Inspector of Factories:—	
Failure to affix Abstract of the Factory and Workshop Acts (s. 133)	5
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Acts (s. 5)	3
Other	2
Underground Bakehouses (s. 101):—	
Certificates granted during the year .. .. .	..
In use at the end of the year	1

**The Infectious Diseases,
Tuberculosis,
and the Work of the
Borough Laboratories.**

THE INFECTIOUS DISEASES.

Infectious Diseases Notified, 1904-1913.

	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913
Small Pox	1	0	0	0	0	0	4	0	0	0
Scarlet Fever ..	257	223	37	45	128	82	79	56	28	98
Diphtheria	56	60	29	18	41	29	32	29	31	52
Typhoid Fever ..	17	12	12	8	11	5	2	4	1	8
Erysipelas	38	38	51	24	22	22	30	45	38	32
Puerperal Fever ..	3	0	0	2	1	4	4	6	0	2
Acute Poliomyelitis..	0	0	0	0	0	0	0	0	2	0
Cerebro-Spinal Meningitis	0	0	0	0	0	0	0	0	0	3
	372	333	129	97	203	142	151	140	100	195

*Deaths from Infectious Diseases registered in the Borough,
1904--1913.*

	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913
Small Pox	0	0	0	0	0	0	2	0	0	0
Scarlet Fever ..	6	3	1	0	1	1	2	2	0	1
Diphtheria	7	10	3	1	5	2	2	3	4	5
Typhoid Fever ..	4	2	2	0	2	0	1	0	1	5
Erysipelas	2	0	3	1	1	2	3	2	0	1
Puerperal Fever ..	2	0	0	4	0	2	2	3	1	1
Measles	12	0	9	1	9	6	1	7	5	0
Whooping Cough ..	17	5	19	10	7	3	12	5	2	6
Phthisis	48	49	36	45	47	39	49	27	45	40
Cerebro-Spinal Meningitis	0	0	0	0	0	0	0	0	0	3

Monthly Notifications, 1913.

Month.	Scarlet Fever.	Diph- theria.	Typhoid Fever.	Ery- sipelas.	Puer- peral Fever.	Cerebro- Spinal Meningitis	Pulmon- ary Tuber- culosis.	Other Tubercu- lar Diseases	Total.
January	4	5	..	2	1	..	9	..	21
February	9	..	..	2	..	..	6	11	28
March	3	..	1	1	..	..	8	4	17
April	5	1	1	3	..	..	10	9	29
May	3	..	1	5	..	..	5	3	17
June	4	4	..	5	..	..	9	11	33
July	5	4	1	1	..	1	6	4	22
August	10	6	2	3	..	..	13	6	40
Sept.	8	1	2	1	..	..	13	2	27
October	16	15	..	5	1	..	9	3	49
November	17	11	..	3	..	1	11	4	47
December	14	5	..	1	..	1	8	4	33
Year 1912	98	52	8	32	2	3	107	61	363

MILE END ISOLATION HOSPITAL.

87. Though for a great part of the year the importance of enlarging this hospital was discussed and plans were drafted and considered, the work was not actually begun.

88. The need for the enlargement is brought about in two ways: firstly, to enable the Borough Council to accommodate patients suffering from Tuberculosis under arrangements with the Essex County Council, and secondly to provide accommodation for cases of infectious disease from the adjoining districts.

89. It is very difficult to say what the cost per week of a patient in an isolation hospital should be. The cost varies enormously from many causes—proper well-built brick buildings, combined with a site of the correct area, will start the hospital with a heavy loan to pay off. This from year to year has to be taken into account when calculating the cost per week per patient. Then again there is the cost of up-keep of the wards, the administration block and grounds, all of which have to go on irrespective of whether there are many or few patients in the wards.

90. It is these standing charges which make the cost per patient appear so heavy in a small hospital; directly these are split up among a large number of patients the cost per patient is much lessened, for these standing charges are only slightly increased, if at all, by an increased number of patients.

91. The number of patients admitted to the hospital in 1913 was larger than in 1912. There were a larger number from Colchester itself, more cases were sent in from the neighbouring districts, and eight cases of Pulmonary Tuberculosis were constantly in the hospital, being admitted under an arrangement made with the Essex County Council.

The following table gives the number of cases admitted, and the Authorities sending them in :—

	Scarlet Fever.	Diphtheria.	Typhoid Fever.	Totals.
Colchester Borough ..	71	43	6	120
„ Garrison ..	9	3	..	12
„ Royal Institution for Idiots	10	..	..	10
Brightlingsea U.D. ..	..	..	..	..
Frinton-on-Sea U.D. ..	2	..	..	2
Walton U.D. ..	..	..	..	..
Wivenhoe U.D. ..	..	1	..	1
Lexden & Winstree R.D. ..	7	..	1	8
Tendring R.D. ..	3	1	18	22
Totals	102	48	35	175

Besides these, 12 diphtheria contacts who were harbouring the Diphtheria organism, but had not themselves contracted the disease, were sent into the hospital from the Borough, and one case of German Measles was admitted from the Royal Institution for Idiots and Imbeciles.

92. Seven deaths occurred from the above diseases. Four of these were caused by Enteric Fever, two by Diphtheria, and one by Scarlet Fever. These deaths are considered in detail under the individual diseases.

SCARLET FEVER.

93. The record of 1912 was not nearly approached in 1913, the number of cases notified being more than three times as many.

Scarlet Fever has of recent years been going through a period in which the disease has been unusually mild. Instead of children being prostrated with illness for three weeks or more, they feel quite well as a rule in four or five days, and seldom are they really ill for more than one week, though complications seem to occur as frequently as previously. It is for this reason that the disease so readily spreads. A child has a rash and appears well within 24 hours. His mother was no doubt at first anxious, but finding

the child quite well she fails to send for a doctor and in a day or two the child returns to school, and it is not until peeling begins that the true nature of the rash is recognised. Meantime other children have taken the disease.

94. The majority of the cases notified in the Borough were sent into the Isolation Hospital. Out of 98 cases notified, 90 were sent in—a percentage of 91·8.

The Outside Districts sent 12 cases into the hospital.

In these 102 cases removed to hospital only one death occurred. In this case the disease was very severe, and the child died two days after admission to the hospital. A case mortality rate of 0·88 per cent.

The average stay of these cases in hospital was six weeks and two days each.

DIPHTHERIA.

95. This disease also was more prevalent in 1913 than in previous years. It is not at all an uncommon occurrence for Diphtheria to be more prevalent when Scarlet Fever is about. The reason is obscure, but it is certainly recognised that there is some connection or common cause of these diseases. It is very probable that climatic conditions play a much larger part in their dissemination than is at present recognised.

96. Out of the 52 cases notified, 46, or 88 per cent., were removed to the Isolation Hospital. The rule of swabbing the throats of all contacts is closely adhered to, and by this means 17 persons, who themselves had not diphtheria, were found to be harbouring the Klebs-Loeffler Bacillus. It was considered advisable to remove 12 of these persons to the Isolation Hospital until free from the infection. The remaining 5 were isolated and treated in their own homes.

97. Two cases of Diphtheria were sent in from the outside districts.

Five deaths occurred from this disease. Three cases died before removal to the hospital. Two cases died in the hospital.

Both these cases were notified so late that antitoxin was of little or no use. One died the day after admission, the other three days after admission.

Thus out of 48 cases admitted to the hospital two died, giving a case mortality of 4.1 per cent.

The average stay of these cases in hospital was 5 weeks and two days.

ENTERIC FEVER.

98. The number of cases of Enteric Fever notified in 1913 was eight. These cases were distributed through the months from March to September. In no case was there any history of infection from shell-fish.

The illness in several of these cases is of interest :—

1. *March.* A. Age 33 years.
A mild case who died suddenly in hospital from heart failure.
2. *April.* B. Age 34 years.
A mild case, whose mother from her history appeared to have had typhoid 6 months previously. Recovery.
3. „ C. Age 33 years.
Admitted to Essex County Hospital in December for severe heart disease. The blood reaction in March was positive, otherwise no reason to have suspected Typhoid. Died.
4. *May.* D. Age 36 years.
Just returned from abroad, ill on the boat Diagnosed as Typhoid upon arrival in Colchester. Recovery.
5. *July.* E. Age 15 years.
Slightly feverish and blood reaction tested with positive result. No other signs or symptoms of the disease. Recovery.
6. *August.* F. Age 17 years.
Well marked case. Recovery.

7. *August.* G. Age 37 years.
Well marked case. Died.
8. *Sept.* H. Age 22 years.
Exceedingly malignant type of the disease.
Died.

99. Six of the eight cases were removed to the Isolation Hospital. One of the other two remained at home and the other case was notified from the Essex County Hospital. Thus 75 per cent. of the cases were removed to the Borough Hospital.

100. Nineteen cases of Typhoid Fever were sent to the hospital from outside districts.

Four of these nineteen cases died, a case mortality of 21.0 per cent. This mortality is exceptionally high because one case was sent in from an outside district in a very advanced stage of the disease and only lived five days after admission. Another case had the disease in an extremely malignant form and from the first there was hardly any chance of recovery.

The average stay of these cases in hospital, including those that died, was 6 weeks each.

SMALL-POX.

101. No case of small-pox was notified during 1913.

ACUTE ANTERIOR POLIOMYELITIS AND CEREBRO-SPINAL MENINGITIS.

102. No case of Poliomyelitis was notified during 1913, but three cases of Cerebro-spinal Meningitis were notified.

All three of these cases were removed to the County Hospital and two of them subsequently died there.

103. Disinfection was carried out at the houses in which these children lived in the same way as is done in the case of the other notifiable diseases.

THE NON-NOTIFIABLE INFECTIOUS DISEASES.

104. None of these diseases occurred to any great extent. Chicken-pox was a little more prevalent, but the cases were spread over the whole year and never occurred to a large extent at one time.

The following table gives in four weekly periods the number of each of these diseases that were notified to the Public Health Department.

Measles.	Whooping Cough.	Chicken Pox.	Mumps.
5	29	24	2
11	15	12	36
2	9	18	22
1	6	..	1
1	4	12	3
..	15	13	..
..	16	3	3
..	7	8	1
..	..	3	10
..	..	3	4
..	1	..	21
..	..	3	25
20	102	99	128

105. As in previous years, disinfectant is supplied, free of charge, from the Public Health Offices, when those who are in charge of a child suffering from an infectious disease apply for it.

TUBERCULOSIS.

106. The arrangements outlined in the Report for 1912 came into being during the following year.

The eight beds set aside at the Borough Isolation Hospital for cases of Pulmonary Tuberculosis were quickly filled and they have remained full throughout the year.

Fifty cases were received during the year and of these three died while in the hospital. Including the three that died, the average stay of these cases in the hospital was seven weeks and three days each.

None but male cases with this disease were received into the hospital.

107. The Tuberculosis Dispensary was opened early in the year and has proved a great success. It serves not only the purpose of being a centre for giving treatment and advice to persons suffering from this disease, but it is also a centre at which the Tuberculosis Officer is able to collect various information concerning each case.

It was unfortunate that there was such a procession of different Tuberculosis Officers working at Colchester and at the same time expected also to cover a large part of the adjoining County. Colchester and the immediate neighbourhood are large enough for one officer who should be resident in Colchester. It is very probable that during 1914 a Tuberculosis Officer will be appointed for Colchester and district only, and this Officer will live in the Borough.

108. The Health Visitor has visited once a quarter every case of Tuberculosis notified.

It is suggested that in future the Health Visitor should also be the Nurse at the Tuberculosis Dispensary. In this way overlapping would be avoided, as at present both the Tuberculosis Nurse and the Health Visitor visit all cases of Tuberculosis.

109 The new Tuberculosis Regulations of 1912 came into force on 1st February, 1913. These Regulations made all forms of Tuberculosis notifiable to the Medical Officer of Health.

Not only is it now compulsory for all cases to be notified, if not previously notified, but also, whenever a case enters or leaves a Sanatorium or Poor Law Institution, the Medical Officer of that Institution has to notify this fact to the Medical Officer of Health of the district in which the patient resides or is going to reside.

Notifications are made upon four different forms A, B, C & D. On form A cases are notified by general practitioners or Medical Officers of a Hospital or Institution when they have reason to believe that the case has not previously been notified.

The School Medical Inspector notifies cases on Form B. On Forms C & D, Medical Officers of Poor Law Institutions or Sanatoria notify the admission and departure of patients.

Between February 1st and December 31st, 1913, 227 notifications were received. They were divided as follows :—

Form A.	Form B.	Form C.	Form D.
168	10	24	25

These notifications related to 160 cases, of which 99 were cases of Pulmonary Tuberculosis, and 61 were suffering from other forms of the disease.

110. Besides these cases, 8 cases of Tuberculosis were notified during January under the previous regulations. These were all Pulmonary cases. Thus the total number of cases for the year was 107 Pulmonary Tuberculosis and 61 other forms of Tuberculosis.

Table II. at the end of this Report gives the age distribution of these cases and shows very distinctly how the great majority occur between the ages of 5 and 45, and the majority of these between 15 and 45, the working period of life.

111. The sex distribution of these 168 cases is also of interest, and is surprisingly equally divided :—

	Males.	Females.
Pulmonary Tuberculosis	53	54
Other Forms of Tuberculosis	31	30

112. The other forms of Tuberculosis notified may be

tabulated in the following way, showing the parts of the body affected :—

Part affected.							Number of Cases
Bones and Joints	..	..	..	..	..	..	19
Glands (excluding Abdominal)	..	..	..	..	..	..	14
Peritoneum and Abdominal Glands	..	..	..	..	..	..	8
Skin	..	..	..	..	..	..	6
Pleura	..	..	..	..	..	..	6
Meninges	..	..	..	..	..	..	5
Testicles	..	..	..	..	..	..	2
Kidney	..	..	..	..	..	..	1
Total							61

113. The deaths from Tuberculosis remain about the same in number as in previous years, but with the steadily increasing population this produces a lower death-rate from the disease as the following table shows :—

Number of Deaths from Tuberculosis with the Death-Rate from Pulmonary Tuberculosis for the past 10 years.

Year.	Deaths from Pulmonary Tuberculosis.	Death-rate of Pulmonary Tuberculosis.	Deaths from other forms of Tuberculosis
1904	41	1·03	17
1905	44	1·09	12
1906	32	·79	20
1907	44	1·07	12
1908	45	1·08	11
1909	38	·90	21
1910	45	1·06	14
1911	29	·66	10
1912	39	·88	16
1913	34	·76	8

CHEMICAL AND BACTERIOLOGICAL LABORATORY WORK.

114. The work in the Laboratories increased a great deal during the past year. More swabs were examined than in 1912, to the extent of 325, and similarly more sputa and specimens of Blood were examined.

115. Persons who came in contact with cases of Diphtheria were swabbed, as has now been done for some years past, with the result that out of 260 persons whose throats were thus examined, 17 were found to be harbouring the Diphtheria bacillus. These persons were treated until they were free from the infection.

116. The following table gives the bacteriological work that was done in 1912. The water analyses that were made are given in a previous part of the report.

Examination of—	Specimens sent by Medical Practitioners		Specimens taken by, or under the direction of, the M.O.H.	
	Positive.	Negative.	Positive.	Negative.
Throat or Nose Swabs for Diphtheria Bacillus	33	124	157	472
Sputum for the Tubercle Bacillus ..	30	93	35	7
Blood for Widal's (Typhoid) Reaction ..	6	18	2	—

WALTER F. CORFIELD, M.D.,

36, Stockwell St.

Medical Officer of Health

**Meteorological
and
Statistical Tables.**

RAINFALL RETURNS

Month.	Total Depth (inches)		Greatest fall in 24 hrs. (at Osborne St. Depot)		Number of days on which 0·01 in. or more fell (at Osborne St. Depot.)	Rainfall for 1912 at Osborne St. Depot.
	Lexden.	Osborne St. Depot.	Depth.	Date.		
January	2·86	2·64	·76	11th	19	1·96
February	·56	·51	·18	1st	6	1·24
March	1·45	2·07	·57	31st	21	2·82
April	2·20	1·65	·54	11th	16	·21
May	1·56	1·59	·56	3rd	11	1·15
June	1·07	1·51	·65	17th	10	1·90
July	1·48	1·18	·26	14th	10	1·27
August	·52	·49	·14	23rd	7	5·04
September	1·07	1·23	·47	16th	10	2·61
October	3·19	3·16	·80	26th	12	1·54
November	2·75	3·06	·57	10th	18	1·89
December	·74	·62	·13	3rd	10	2·06
Total	19·45	19·71			150	23·69

The details for the above table were again kindly supplied by Mr. S. F. Hurnard and the Borough Surveyor.

TABLE I.

Vital Statistics of Whole District during 1913 and previous years.

Year.	Popula- tion esti- mated to middle of each Year.	Births.			Total Deaths Registered in the District.		Transferable Deaths.*		Nett Deaths belonging to the District.			
		Uncorrected Number.	Nett.						Under 1 year of Age.		At all Ages.	
			Number.	Rate.	Number.	Rate.	Of Non-Residents regis- tered in the District.	Of Residents not regis- tered in the District.	Number.	Rate per 1000 Nett Births.	Number.	Rate.
1	2	3	4	5	6	7	8	9	10	11	12	13
1908	41,450	976	976	23.55	515	12.4	32	0	88	90.2	483	11.65
1909	41,835	998	998	23.85	516	12.3	25	5	89	89.6	492	11.8
1910	42,275	958	958	22.6	551	13.0	43	3	87	90.1	511	12.0
1911	43,463	972	975	22.4	547	12.5	32	24	105	107.7	539	12.4
1912	44,160	870	873	19.7	500	11.3	50	20	56	64.1	470	10.6
1913	44,700	880	882	19.7	564	12.6	83	19	53	60.0	500	11.1

*“ Transferable Deaths ” are deaths of persons who, having a fixed or usual residence in England or Wales, die in a district other than that in which they resided. The deaths of persons without fixed or usual residence, *e.g.*, casuals, must not be included in Columns 8 or 9, except in certain instances under 3 (b) below. The Medical Officer of Health will state in Column 8 the number of transferable deaths of “ non-residents ” which are to be deducted, and will state in Column 9 the number of deaths of “ residents ” registered outside the district which are to be added in calculating the nett death-rate of his district.

The following special cases arise as to Transferable Deaths :—

(1) Persons dying in Institutions for the sick or infirm, such as hospitals, lunatic asylums, workhouses, and nursing homes (but not almshouses) must be regarded as residents of the district in which they had a fixed or usual residence at the time of admission. If the person dying in an Institution had no fixed residence at the time of admission, the death is not transferable. If the patient has been directly transferred from one such Institution to another, the death is transferable to the district of residence at the time of admission to the first Institution.

(2) The deaths of infants born and dying within a year of birth in an Institution to which the mother was admitted for her confinement should be referred to the district of fixed or usual residence of the parent.

(3) Deaths from Violence are to be referred (a) to the district of residence, under the general rule ; (b) if this district is unknown, or the deceased had no fixed abode, to the district where the accident occurred, if known ; (c) failing this, to the district where death occurred, if known ; and (d) failing this, to the district where the body was found.

Total population at all ages, 43,452

Number of inhabited houses, 8,881

Average number of persons per house, 4.8

Area of District in acres (land and inland water),
11,333

At Census,
1911.

TABLE II.

Cases of Infectious Disease notified during the Year 1913.

Notifiable Disease.	Number of Cases Notified.								Total Cases Notified in each Locality (e.g. Parish or Ward) of the District.				Total Cases Removed to Hospital.	
	At all Ages.	At Ages—Years.							North.	South.	East.	West.		
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 45.	45 to 65.	65 and upwards.						
Small-pox .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cholera .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Plague .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria (including Membranous Group) ..	52	..	6	35	6	5	..	..	16	19	5	12	46	..
Erysipelas	32	..	..	3	5	10	8	6	6	8	16	2	..	..
Scarlet Fever	98	1	10	69	15	3	..	..	22	50	17	9	90	..
Typhus Fever .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric Fever	8	..	..	..	3	5	..	..	1	1	4	2	6	..
Relapsing Fever .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Continued Fever .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Fever	2	..	..	..	1	1	..	..	..	1	1	..	..	..
Cerebro-spinal Meningitis ..	3	..	..	3	..	..	..	..	..	1	1	1	..	..
Poliomyelitis .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Pulmonary Tuberculosis ..	107	..	..	24	27	39	13	4	24	32	17	34	..	..
Other forms of Tuberculosis	61	3	2	24	8	18	3	3	7	16	11	27	..	..
Total	363	4	18	158	65	81	24	13	76	128	72	87	142	..

Isolation Hospital, Mill Road, Mile End, Colchester, provided by Colchester Borough Council.

NOTES TO TABLE III.

The classification and numbering of Causes of Death are those of the "Short List" on page XXV. of the Manual of the International List of Causes of Death.

- (a) All "Transferable Deaths" of residents, *i.e.*, of persons resident in the district who have died outside it, are to be *included* with the other deaths in columns 2-10. Transferable deaths of non-residents, *i.e.*, of persons resident elsewhere in England and Wales who have died in the District, are in like manner to be *excluded* from these columns. For the precise meaning of the term "transferable deaths" see footnote to Table I.

The total deaths in column 2 of Table III. should equal the figures for the year in column 12 of Table I.

- (b) All deaths occurring in institutions for the sick and infirm situated within the district, whether of residents or of non-residents, are to be entered in the last column of Table III.
- (c) All deaths certified by registered Medical Practitioners and all Inquest cases are to be classed as "Certified"; all other deaths are to be regarded as "Uncertified."
- (d) Exclusive of "Tuberculous Meningitis" (10), but inclusive of Cerebro-spinal Meningitis.
- (e) Title 19 should be used for deaths from Diarrhoea and Enteritis at all ages.

TABLE III.

Causes of, and Ages at Death, during the Year 1913

Causes of Death.		Net Deaths at the subjoined ages of "Residents" whether occurring within or without the District									Total Deaths whether of "Residents" or "Non-Residents" in Institutions in the District
		All Ages.	Under 1 year.	1 and under 2 years.	2 and under 5 years.	5 and under 15 years.	15 and under 25 years.	25 and under 45 years.	45 and under 65 years.	65 and upwards.	
1		2	3	4	5	6	7	8	9	10	11
All causes	{ Certified ..	492	51	11	10	20	25	63	107	205	185
	{ Uncertified ..	8	2	..	1	..	..	1	1	3	..
Enteric Fever .. ..	..	4	..	..	..	..	1	3	..	..	5
Small Pox .. ..	..	..	..	..	..	..	..	..	..	..	..
Measles .. ..	..	..	..	..	..	..	..	..	..	..	..
Scarlet Fever .. ..	..	..	..	..	..	..	..	..	..	..	1
Whooping Cough .. ..	..	6	5	..	1	..	..	..	..	..	..
Diphtheria and Croup ..	..	5	..	..	2	3	..	..	..	..	2
Influenza .. ..	..	3	..	..	..	..	..	..	2	1	..
Erysipelas .. ..	..	1	..	..	..	..	..	..	1	..	..
Phthisis (Pulmonary Tuberculosis) .. ..	..	34	..	..	..	..	8	12	10	4	13
Tuberculous Meningitis ..	..	7	2	1	..	2	1	..	1	..	6
Other Tuberculous Diseases ..	..	11	1	1	1	2	2	3	1	..	9
Cancer, malignant disease ..	..	43	..	..	1	..	..	8	21	13	21
Rheumatic Fever .. ..	..	1	..	..	..	1	..	..	..	..	1
Meningitis (see note <i>d</i>) ..	..	4	..	..	1	3	..	..	..	..	3
Organic Heart Disease .. ..	..	70	1	..	..	4	1	11	17	36	26
Bronchitis .. ..	..	32	6	3	..	..	..	1	3	19	7
Pneumonia (all forms) ..	..	15	..	2	..	..	2	3	2	6	12
Other Diseases of Respiratory Organs .. ..	..	8	..	..	..	..	..	2	..	6	2
Diarrhœa and Enteritis (see note <i>e</i>) .. ..	..	5	4	..	..	..	..	..	..	1	1
Appendicitis and Typhlitis ..	..	3	..	..	..	..	1	1	1	..	2
Cirrhosis of Liver .. ..	..	7	..	..	..	..	..	1	5	1	3
Alcoholism .. ..	..	..	..	..	..	..	..	..	..	..	..
Nephritis and Bright's Disease ..	..	21	..	..	..	..	..	3	8	10	11
Puerperal Fever .. ..	..	1	..	..	..	..	..	1	..	..	1
Other Accidents and Diseases of Pregnancy and Parturition ..	..	3	..	..	..	..	1	1	1	..	4
Congenital Debility and Malformation, including Premature Birth .. ..	..	24	24	..	..	..	..	..	..	..	2
Violent Deaths, excluding Suicide .. ..	..	16	2	1	3	..	3	2	3	2	12
Suicide .. ..	..	6	..	..	..	..	..	2	4	..	3
Other Defined Diseases ..	..	170	8	3	2	5	5	10	28	109	38
SUB-ENTRIES (included in above figures).—		500	53	11	11	20	25	64	108	208	185
Cerebro-spinal Meningitis		3	..	..	..	3	..	..	..	..	3

NOTES TO TABLE IV.

- (a) The total in the last column of Table IV. should equal the total in column 10 of Table I, and in column 3 of Table III.
- (b) Under Abdominal Tuberculosis are to be included deaths from Tuberculous Peritonitis and Enteritis and from *Tabes Mesenterica*.
- (c) The total deaths from Congenital Malformations, Premature Birth, Atrophy, Debility and Marasmus should equal the total in Table III. under the heading Congenital Debility, and Malformation including Premature Birth.

Want of Breast Milk should be included under Atrophy and Debility.
- (d) For references to the meaning of any other headings, *see* notes attached to Table III.

TABLE IV.

INFANT MORTALITY, 1913

*Nett Deaths from stated causes at various Ages under
One Year of Age (a).*

Cause of Death.			Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 4 Weeks.	1-3 Months.	3-6 Months.	6-9 Months.	9-12 Months.	Total Deaths under 1 Year.
All Causes	Certified ..	..	11	1	6	4	22	6	8	10	5	51
	Uncertified ..	..	1	..	..	..	1	1	..	..	..	2
Whooping Cough ..			..	..	..	..	..	1	..	3	1	5
Tuberculous Meningitis..			..	..	..	..	..	..	..	2	..	2
Abdominal Tuberculosis (b) ..			..	..	..	..	..	..	..	..	1	1
Convulsions ..			..	1	..	..	1	1	..	3	..	5
Bronchitis..			..	..	..	..	..	1	4	..	1	6
Diarrhœa ..			..	..	..	..	..	1	2	1	..	4
Suffocation, overlying ..			..	..	..	..	..	1	1	..	..	2
Injury at birth ..			..	1	..	..	1	..	..	..	..	1
Congenital Malformations (c) ..			..	2	..	1	3	..	1	1	..	5
Premature Birth ..			..	7	..	3	2	12	1	..	..	13
Atrophy, Debility and Marasmus ..			..	1	..	2	1	4	1	..	1	6
Other Causes ..			..	..	1	1	2	..	..	..	1	3
Totals ..			..	12	1	6	4	23	7	8	10	53

Nett Births in the Year...	Legitimate	...	...	842
	Illegitimate	...	...	40
Nett Deaths in the Year of	Legitimate infants	...	...	48
	Illegitimate „	...	...	5

